

## SECTION 2: SUPPLY, DEMAND, AND NEED

### MAJOR TRENDS

**National Trends & Management Considerations.** One of the most current and comprehensive looks at outdoor recreation trends and future demand in the US is found in a book entitled *Outdoor Recreation in American Life* (Cordell, 1999). An important component of this assessment deals with identifying major outdoor recreation participation trends. The study reflects on some general findings and discusses future challenges as participation in outdoor recreation continues to grow and become an increasingly central part of American life. The discussion below provides a sampling of some of the major trends expected in the US.

Outdoor recreation is a fundamental aspect of life for most Americans. Almost everyone participates in some kind of outdoor recreational activity. The most popular are casual activities such as walking, sightseeing, and visiting beaches. Demand for most activities is increasing, because of sheer increases in population, increases in popularity, or both. More people are participating in a wider variety of activities today than was the case 10 or 20 years ago.

Below are several specific national management considerations, also identified in *Outdoor Recreation in American Life*, that provide useful guidance in framing general recreation trends in New Hampshire.

- The most popular sites will experience greater and greater congestion in the future.
- There will likely be more conflicts among recreationists as they vie for use of the same areas at the same times.
- Access to both developed sites and dispersed areas will become an ever more important management issue.
- Changes in race, age, income, culture, etc. will continue to change the type of demand for recreation opportunities, however, overall demand will continue to increase.
- The number of organized groups (representing a wider variety of outdoor recreation interests) will continue to grow and will have an increasingly large voice in public land management.
- Pressure is expected to be particularly heavy at already popular water sites, especially with advances in technology.
- Travel and tourism will continue to grow if transportation and access to resources remains affordable and available.

**State Trends.** Several other information sources also provide data that helps to frame outdoor recreational trends in the state. The findings and trends listed below are meant to provide a general flavor for recreation demand and need across New Hampshire. Refer to the details of this report, or to the original data source, for more detailed information.

- A majority of recreational land acreage is found in the northern part of New Hampshire. Greater numbers of smaller recreational sites are found in the southern part of the state.
- On average, slightly more than 52 percent of New Hampshire land acres were enrolled in Current Use as of 2001. Statewide, about 39 percent of Current Use Lands receive the recreational adjustment that same year.
- State Parks have seen an increase in attendance. Current estimates indicate State Parks saw around 6.69 million visitors in 2001.
- According to the *Comprehensive Statewide Trails Study* (OSP, 1997) US Forest Service Data shows a 23 percent increase in trail use in the WMNF between 1974 and 1995.
- Wheeled off-highway vehicle registrations, both in-state and out-of-state, are increasing. Total registrations have more than doubled in the last seven years. Out-of-state registrations have more than tripled.
- Out-of-state snowmobile registrations are steadily increasing. Out-of-state registrations have more than doubled in the last seven years, while in-state registrations have remained steady.
- Boating registrations doubled between 1980 and 1990 alone, and have increased over 19 percent between 1990 and 2000
- According to the 2000 Census, the average age in New Hampshire is increasing. The average age, as of 2000, in New Hampshire is 37.1 years. This compares to an average age of 30.1 in 1980 and 32.8 in 1990. An aging population will impact participation trends over time.
- According to US statistics, New Hampshire, Massachusetts, and New England as a region, all have higher income levels than the United States average. People with middle incomes tend to show higher participation rates in outdoor recreation than those with low incomes.
- Between 1990 and 2000, the state's population has increased by over 11 percent, meaning that demand for outdoor recreation opportunities (as measured by number of people participating) is also likely to increase.
- Many of the most popular activities in New Hampshire are similar to those identified in nationwide studies. Wildlife observation, driving for pleasure, sightseeing, and jogging/running/walking are extremely popular activities. Additionally, these activities show a high frequency of participation. Day hiking seems to be more popular in New Hampshire than the national average.
- Native New Hampshire residents have higher participation rates than non-natives for several different outdoor recreational activities including hunting, fishing, motor sports, activities that require developed settings, and active pursuits (e.g. such as swimming, jogging, hiking, rock climbing, etc.).

- The most popular activities in the WMNF include viewing wildlife and natural features, sightseeing, hiking and walking, general relaxation, driving for pleasure on forest roads, cross-country skiing, and developed camping.
- Available LWCF grants the past two years have fell far below the demand for funding. In the last two years, there were 65 local proposals totaling almost \$4.5 million in requests. A total of 15 grants equaling \$1.35 million were awarded.
- Seventy six (76) percent of recreational leaders surveyed in a 2001 UNH survey feel that local recreational demand currently exceeds supply.

## RECREATION SUPPLY

New Hampshire has a rich natural and cultural heritage. Our landscape lends itself well to a wide range of recreational pursuits, enjoyed by residents and tourists alike. This heritage is an important reason why New Hampshire continues to be a popular place to visit and an even more attractive place to call home.

Residents of New Hampshire have a strong connection with the outside environment. In 1997, the University of New Hampshire (UNH) conducted a *Statewide Outdoor Recreation Needs Assessment* of New Hampshire residents. According to this study, over 81 percent said that New Hampshire's scenic beauty and cultural heritage were important to them personally. Sixty-one (61) percent of respondents agreed that outdoor recreation plays a central role in their lives. Given recreation's centrality, planning for outdoor recreation is important to help insure that high-quality recreational opportunities remain available for future generations. Planning is also necessary to insure that the state's natural and cultural heritage is maintained in the face of changing conditions and trends. Understanding the quality and quantity of New Hampshire's recreation supply as well as trends in demand provide some guidance and direction to the planning process.

An understanding of "Recreational Supply" can be gained through quantitative inventories of existing facilities and resources, as well as through more qualitative means of gauging resource conditions. Maps and inventories in New Hampshire exist for both conservation lands and for lands with recreational facilities. Much of the information that follows is presented by county. County-level divisions provide a starting place for understanding regional variations that may exist beyond a reported statewide average. Figure 1 shows a map of New Hampshire's 10 counties as a reference.



**Figure 1. Counties of New Hampshire**

## Conservation Lands in New Hampshire

The New Hampshire Geographically Referenced Analysis and Information Transfer System, better known as [GRANIT](#), maintains comprehensive statewide database of geographic related information. Sample databases include roads, town boundaries, surface waters and conservation lands. The statewide conservation lands layer provides acreage and ownership information about both publicly and privately held conservation land holdings with either permanent or limited protection. This database is also available on-line through the [GRANIT Conservation Lands Viewer](#). This tool allows anyone to generate and print web-based maps of conservation lands. Table 1 below provides a summary of the public and private fee and easement holdings across the state, by acreage.

<b>Table 1. Conservation Lands by Owner and Protection Type</b>	
<b>Ownership/Protection Type</b>	<b>Acres</b>
Federal Fee	762,535
Federal Easement	3,808
State Fee	189,602
State Easement	32,854
Municipal Fee	101,413
Municipal Easement	34,361
Private Non-Profit/Other Fee	130,991
Private Non-Profit/Other Easement	94,724
<b>TOTAL</b>	<b>1,350,288</b>

Source: GRANIT, 2002<sup>2</sup>

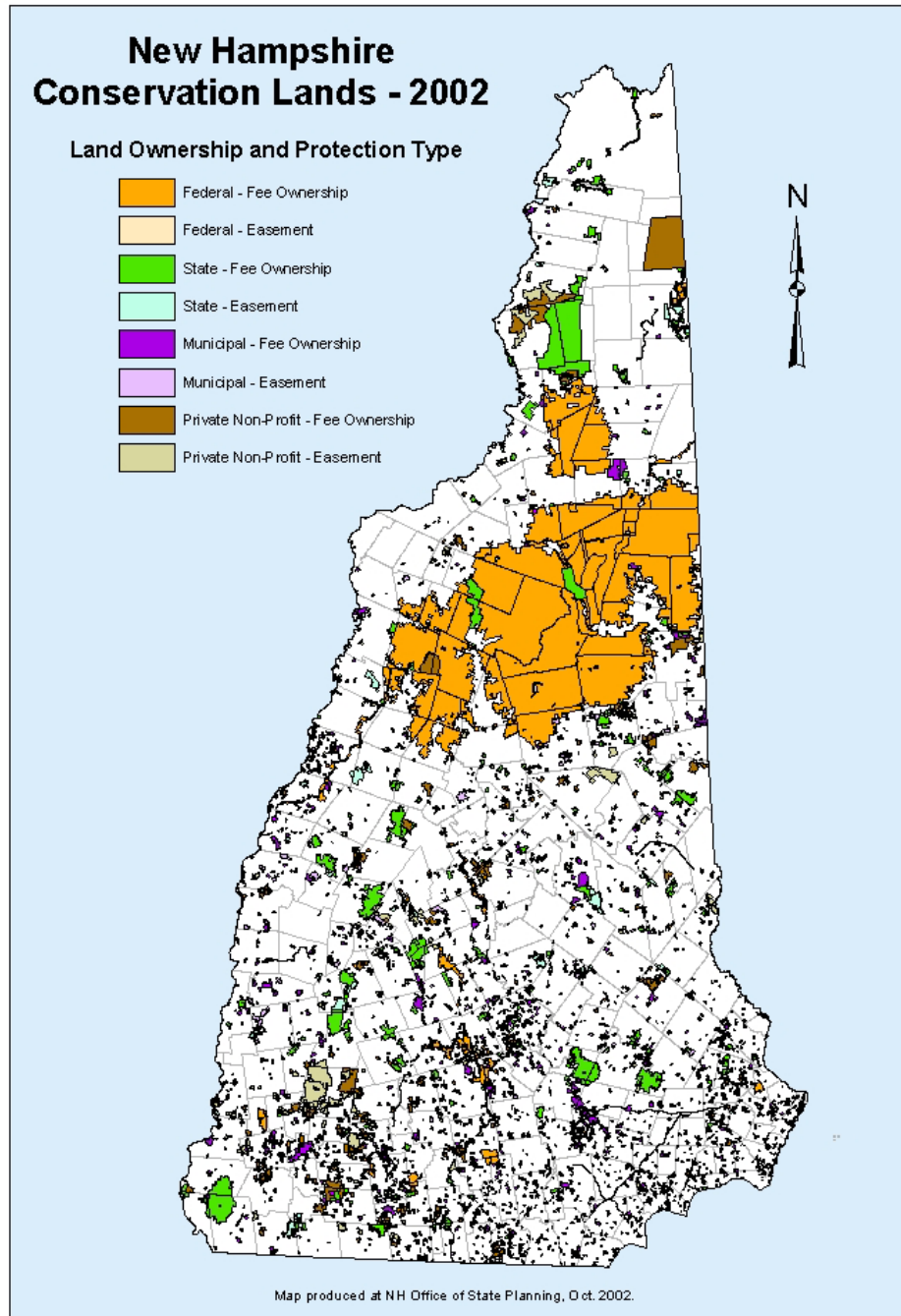
Open space and conservation lands provide opportunities for many different recreational activities. These can range from developed, intensively used parks to remote wilderness experiences. While some parcels in this inventory may contain areas managed expressly for recreation, a majority of these lands are managed with a broader set of goals in mind. Other, sometimes over-riding, management goals might include preserving wildlife habitat, maintaining productive forest or agricultural lands, or protecting water quality or rare or endangered species. In some cases, protected lands may only be available to dispersed low impact recreation. In some cases, public access might not be allowed at all. Access varies and it is important to know and respect the landowner wishes before going on either public or privately held conservation lands.

Figure 2 below provides a visual snapshot of the state's conservation lands, categorized by private and public ownership. Note that several recent conservation land acquisitions involving large land holdings and easements have yet to be included in GRANIT. These lands will be added as data becomes available and transactions are finalized. Of particular note is the 171,500-acre Connecticut Lakes Headwaters area in northern Coos County.

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<sup>2</sup> The "state" data (fee and easement lands under DRED, NHFG, DES, etc.) is based on 2000 information. GRANIT's data on State fee and easement properties will be updated in the spring of 2003.

This landmark public/private partnership, to be finalized in 2003, will help protect a large-tract of important working forest land and maintain traditional recreational access to a substantial section of northern New Hampshire.



**Figure 2. Public and Private Conservation Lands in New Hampshire**

### OSP Recreation Inventory

In addition to information on conservation lands, the Office of State Planning (OSP) periodically updates a statewide inventory of outdoor recreation lands in New Hampshire. The most recent statewide recreation inventory was conducted in 1997, updating the previous 1981 inventory. This inventory provides basic information about ownership and self-reported acreage at over 3,000 sites across the state, as well as information about general types of recreational activities available at each site. The inventory includes a majority of the conservation and open space lands mentioned in the previous section (up through 1997), along with some privately held recreational facilities/lands, municipal playing fields, playgrounds, and the like. This inventory represents the most current and complete database that is specifically devoted to identifying New Hampshire's outdoor recreation lands/facilities.

Table 2 shows that a majority of the recreational lands are in the northern part of the state. Almost 38 percent of lands identified in this inventory are in Grafton County. Adding Coos and Carroll to this, the three northern counties comprise nearly 75 percent of the state's recreation lands. The White Mountain National Forest makes up a substantial part of this total.

<b>Table 2. State and County Population Statistics, Land Acreage and Recreation Supply</b>				
<b>County</b>	<b>2000 Population</b>	<b>Total Land Acreage</b>	<b>Recreation Acreage</b>	<b>Number of Sites</b>
Belknap	56,325	257,726	25,775	271
Carroll	43,666	598,397	192,825	354
Cheshire	73,825	452,911	72,869	356
Coos	33,111	1,152,947	329,617	271
Grafton	81,743	1,096,324	544,337	454
Hillsborough	380,841	561,351	50,617	617
Merrimack	136,225	597,481	84,417	450
Rockingham	277,359	446,221	40,361	654
Strafford	112,233	235,093	12,492	282
Sullivan	40,458	344,219	83,889	183
<b>TOTALS</b>	<b>1,235,786</b>	<b>5,742,660</b>	<b>1,437,199</b>	<b>3892 sites</b>

**Sources:** US Bureau of the Census, 2000 US Census – New Hampshire; OSP, 1997 New Hampshire Outdoor Recreation Inventory; Department of Revenue Administration, Current Use Report 2001.

In general, the northern part of the state can broadly be characterized by large land holdings, with fewer, larger individual recreational areas. The southern part of the state by contrast contains a larger number of smaller recreation sites. This difference makes intuitive sense given that the major population centers of the state are generally found in the southern part of the state, and the large tracts of protected land are located towards the north. While this information provides a general understanding of how recreational lands are distributed across the state, it does not shed much light on the types of recreational lands or their ownership.

Table 3 shows the breakdown of recreation lands by a set of activity types. The activity types presented below are only broad classifications and do not necessarily offer a detailed look at each site. While this statewide inventory provides a sampling of activities available at each site (up to 6), not all possible (or most popular) recreational opportunities were identified during the inventory process. Because of this, it is important to keep in mind that many of the individual sites may provide opportunities beyond that reflected by the classifications listed below<sup>3</sup>.

<b>Table 3. Number of Sites by Selected Activity Types</b>								
	<b>Camp-grounds</b>	<b>Field Sport Areas</b>	<b>Golf Courses</b>	<b>Historic Areas</b>	<b>Natural / Passive Recreation Areas</b>	<b>Parks / Picnic Areas</b>	<b>Water Sports/ Fishing Areas</b>	<b>Winter Sports / Skiing Areas</b>
<b>Belknap</b>	49	36	10	1	56	25	77	1
<b>Carroll</b>	81	31	9	7	110	24	65	10
<b>Cheshire</b>	36	77	7	3	137	29	44	3
<b>Coos</b>	29	31	5	2	109	28	39	6
<b>Grafton</b>	56	91	14	9	138	28	69	16
<b>Hillsborough</b>	42	168	19	12	206	81	49	7
<b>Merrimack</b>	27	104	13	19	206	49	63	8
<b>Rockingham</b>	64	187	23	21	190	68	58	5
<b>Strafford</b>	37	61	7	6	95	37	22	3
<b>Sullivan</b>	9	36	5	6	49	31	28	2
<b>STATEWIDE</b>	<b>430</b>	<b>822</b>	<b>112</b>	<b>86</b>	<b>1296</b>	<b>400</b>	<b>514</b>	<b>61</b>

**Source:** 1997 OSP Recreation Inventory

Sites categorized as natural and passive recreation lands together represent the largest number of recreational lands available in the state. This is followed by sites categorized as field sport areas and then water sport areas. While there are over 820 field sport areas identified in the state, many are small in size and probably represent only a small fraction of the total acreage.

Looking regionally, Hillsborough and Rockingham Counties have the largest population, and also are home to the largest number of field sport areas, parks/picnic areas and golf courses. Given that people tend to participate (or want to participate) in these activities close to home, it is important that a higher proportion of these sites be located near the larger population bases. Also, it is important to note that there is a tendency for supply to drive demand. Greater supply of a certain types of recreation facility provides the public with greater opportunities to participate in that recreational activity.

This data also shows that Belknap County had highest number of water sports and fishing areas, while Strafford County had the fewest. Hillsborough, Merrimack, and

<sup>3</sup> Future inventories may want to expand upon this and provide a more systematic look at activities available at each site.



Rockingham Counties had the highest total of natural areas or “passive” recreation areas, though many of these are smaller in size than the sites listed in counties to the north or west.

The table below (Table 4) provides a county-level breakdown of recreational lands by owner type. These figures provide baseline information about how public and private recreational lands are dispersed across the state. Private lands under Current Use Taxation are not included in this recreation inventory. Current Use lands are examined separately in this report.

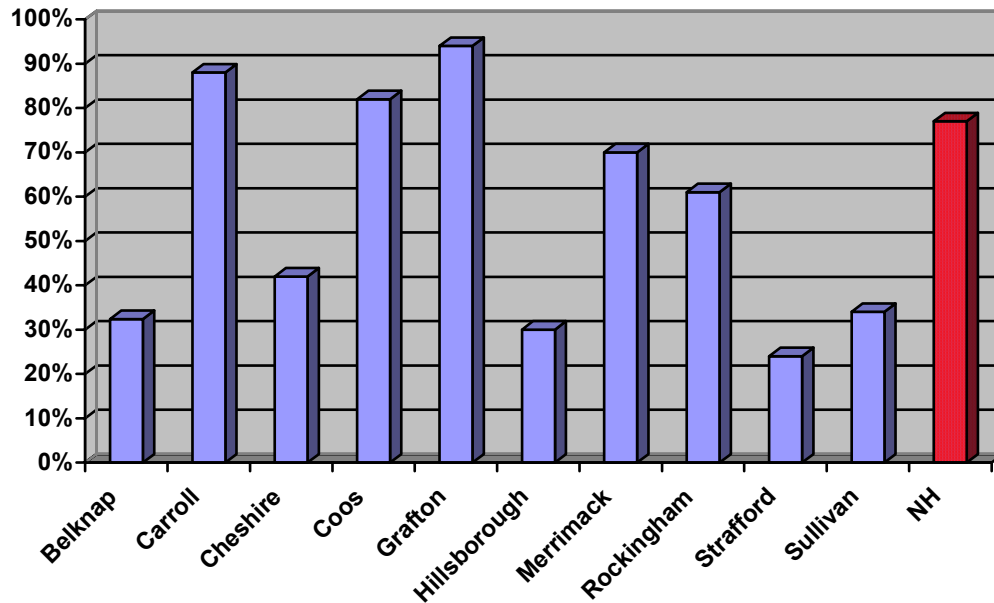
According to these 1997 figures, public lands make up the bulk the identified recreational acreage in New Hampshire. About 77 percent of total recreation acres in this inventory are owned by the federal or state government. Private non-profit organizations own about 11 percent, private for profit entities own nearly seven percent. Municipalities and schools make up the two smallest distinct categories. Municipalities own approximately four percent and schools own less than one percent.

<b>Table 4. Recreational Land Acreage by Owner Type</b>								
	<b>Total Recreation Acres</b>	<b>Federal Acres</b>	<b>State Acres</b>	<b>Municipal Acres</b>	<b>School Acres</b>	<b>Private Non-Profit Acres</b>	<b>Private For Profit Acres</b>	<b>Other Acres</b>
<b>Belknap</b>	<b>25,775</b>	2,610	5,753	3,590	474	8,176	2,572	2,600
<b>Carroll</b>	<b>192,825</b>	148,065	22,372	2,968	347	3,199	15,869	5
<b>Cheshire</b>	<b>72,869</b>	4,667	25,653	6,166	863	31,662	3,649	209
<b>Coos</b>	<b>329,617</b>	212,859	58,105	619	430	27,944	29,660	0
<b>Grafton</b>	<b>544,337</b>	482,985	27,854	4,497	373	10,029	18,217	382
<b>Hillsborough</b>	<b>50,617</b>	2,479	12,539	13,074	1,960	12,959	7,016	590
<b>Merrimack</b>	<b>84,417</b>	23,238	36,034	8,565	634	8,041	7820	85
<b>Rockingham</b>	<b>40,361</b>	150	24,361	5,569	1,215	4,140	4,903	23
<b>Strafford</b>	<b>12,492</b>	0	3,009	3,210	368	2,745	1,774	1,386
<b>Sullivan</b>	<b>83,889</b>	82	28,437	2,336	183	49,894	2,879	78
<b>STATEWIDE</b>	<b>1,437,199</b>	877,135	244,117	50,594	6,847	158,789	94,359	5,358

**Source:** 1997 OSP Recreation Inventory

Figure 3 shows how this federal and state ownership is divided among New Hampshire’s ten counties. The northern counties, largely due to the White Mountain National Forest and some of the larger State Parks, have the highest percentage of recreational lands under state or federal ownership. Carroll, Coos and Grafton Counties all report over 80 percent. Strafford and Hillsborough counties have the smallest percentage of state and federal recreation lands, with 30 percent or less.

**Figure 3. Percentage of Recreation Lands Federally or State Owned by County**



Source: 1997 OSP Recreation Inventory

### Supply of Public Access to Public Waters

In addition to the 1997 Recreation Inventory, the Office of State Planning is in the process of completing an inventory of “public” and “other” water access sites in New Hampshire. This inventory, when complete in 2003, will provide a range of information about each water access site, including ownership, types of facilities, and activity types. Although the inventory is not included in this SCORP, this database will be available for future recreation planning efforts.

In the State of New Hampshire, distinction is made for water access depending upon whether it is State owned or maintained.

- “Public” or State access sites are defined under RSA 270:20a as “...legal passage to any of the public waters of the state by way of designated contiguous land owned or controlled by a State agency, assuring that all members of the public shall have access to and use of the public waters for recreational purposes.”
- “Other” access is defined in the *Public Access Plan for New Hampshire’s Lakes, Ponds and Rivers* (OSP, 1991) as “...legal passage by way of designated land owned or controlled by a public entity (e.g. federal, municipal) or private entity (e.g. commercial, private nonprofit, individual landowner) for the purpose of providing active or passive recreational opportunities and/or use of the public waters of the state, and where such legal passage may or may not involve a fee.”

In the absence of OSP’s finalized water access inventory, the New Hampshire Fish and Game Department (NHFG), the lead agency for public water access, maintains an up-to

date inventory of their public, or State, access sites. Though this information does not provide a comprehensive look at all (e.g. private, municipal, federal) water access sites across the state, it does provide a solid base of information about sites guaranteed by the State<sup>4</sup>.

This data can also be examined by region to explore distribution of public access across the state. Table 5 below summarizes the number of public access sites by county. Information about parking is also reported to provide some indication about the type of access provided.

<b>Table 5. NH Fish and Game Public Water Access Sites</b>				
	<b>Sites Listed</b>	<b>Trailer Parking</b>	<b>Canoe / Car-top Parking</b>	<b>Shorebank, Roadside or Other Parking</b>
<b>Belknap</b>	16	9	5	2
<b>Carroll</b>	5	2	3	0
<b>Cheshire</b>	10	5	3	2
<b>Coos</b>	31	21	4	6
<b>Grafton</b>	37	19	10	8
<b>Hillsborough</b>	16	11	4	1
<b>Merrimack</b>	44	28	10	6
<b>Rockingham</b>	22	11	8	3
<b>Strafford</b>	13	5	7	1
<b>Sullivan</b>	16	9	1	6
<b>NH TOTAL</b>	210	120	55	35

**Source:** NH Public Access Sites, NHFG (2002)

Overall, the New Hampshire Fish and Game Public Access inventory lists 210 State-run public access sites on 151 different lakes, ponds and rivers. Merrimack County has the highest number of identified access sites, followed by Grafton County and Coos County. Merrimack County also had the highest number of trailer boat parking access sites.

This data can also be examined by comparing the number of public access sites in a region/county to the miles of available shoreline. These figures again allow for some general comparisons to be made across different counties in the state. Again, this information provides a baseline of State-owned water access. There are many “other” access opportunities provided by other public or private entities not reported in this table. Table 6 shows that, on average, New Hampshire has one public (State) water access site per 28 miles of shoreline. Carroll County, by far, has the fewest number of public access sites available per mile of shoreline/riverfront. Merrimack and Sullivan counties have the highest density of State-run access sites.

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<sup>4</sup> The Department of Transportation and the Department of Environmental Services also provide some public access opportunities, not necessarily reflected in this total. These sites will be included in the complete water access inventory currently being completed by the Office of State Planning.

<b>Table 6. Miles of Shoreline and Public Access Sites</b>			
	<b>NHFG SITES LISTED</b>	<b>MILES OF SHORELINE AND RIVERBANK</b>	<b>MILES OF SHORELINE PER SITE</b>
Belknap	16	420.6	26
Carroll	5	711.4	142
Cheshire	10	531.2	53
Coos	31	817.4	26
Grafton	37	820.0	22
Hillsborough	16	688.5	43
Merrimack	44	691.1	16
Rockingham	22	549.3	25
Strafford	13	354.4	27
Sullivan	16	302.6	19
<b>NH SUMMARY</b>	<b>210</b>	<b>5886.5</b>	<b>28</b>

**Sources:** NH Fish and Game Department Public Access Inventory (2002) and GRANIT.

### **Current Use Lands**

The 1997 OSP Recreation Inventory contains a major portion of available recreation lands in the state, but does not include the many privately held lands that are kept open at some level of traditional public access. Many activities, such as hunting, fishing, hiking, snowmobiling, and the like, rely heavily on private as well as public lands. Without access to private lands, opportunities to participate in many of these activities would become more limited and public lands would become increasingly crowded.

Capturing a true measure of quantity of private lands open to public access is difficult. Some landowners rely on verbal agreements or informal permits, both of which are difficult or impossible to measure. Though not complete, one proxy measure is to examine lands under Current Use. The Current Use Taxation Program, under RSA 79-A, was established in 1972 to:

*“...encourage the preservation of open space, thus providing a healthful and attractive outdoor environment for work and recreation, maintaining the character of the state’s landscape, and conserving the land, water, forest, agricultural and wildlife resources”.*

Under this program, parcels of land (10 acre minimum) are taxed based on their current use value as open space (e.g. active farm or forest land) rather than on their potential value for development purposes.

Table 7 below provides statistics about the percentage of total land acres in each county (water acres not included), the acres in Current Use, and the resulting percentage of total land acres that are in Current Use. On average slightly more than 52 percent of New Hampshire land acres were enrolled in Current Use as of 2001. This figure has remained relatively stable over the last several years. Sullivan County reports the highest

percentage of land under Current Use (69 percent), while Rockingham County reports the smallest percentage at just over 37 percent.

<b>Table 7. Current Use Lands - 2001</b>			
<b>County</b>	<b>Total Land Acres</b>	<b>Acres in Current Use</b>	<b>Percentage of Land in Current Use</b>
<b>Belknap</b>	257,726.3	135,710.52	52.7%
<b>Carroll</b>	598,396.75	215,697.56	36.1%
<b>Cheshire</b>	452,910.78	287,350.77	63.5%
<b>Coos</b>	1,152,946.8	755,625.29	65.5%
<b>Grafton</b>	1,096,323.54	479,390.38	43.7%
<b>Hillsborough</b>	561,351.43	274,365.76	48.9%
<b>Merrimack</b>	597,481.35	338,020.05	56.6%
<b>Rockingham</b>	446,221.19	167,088.3	37.5%
<b>Strafford</b>	235,092.87	119,997.75	51.0%
<b>Sullivan</b>	344,219.13	237,515.43	69.0%
<b>NH TOTAL</b>	<b>5,742,660.14</b>	<b>3,010,741.80</b>	<b>52.4%</b>

Source: Department of Revenue Administration, Current Use Report 2001

Under New Hampshire's Current Use program landowners can also accept an additional 20 percent "recreation adjustment" to their taxes. This recreation adjustment lowers a landowner's tax burden by an additional 20 percent if the land is kept open to the public for traditional forms of recreation. As defined by RSA 79-A, the six traditional forms of recreation consist of skiing, snowshoeing, fishing, hunting, hiking, and nature observation. Access must be available year-round unless these activities are detrimental to crops on agricultural lands or active forestry operations.

Table 8 below summarizes the percentage of Current Use lands that received this recreational adjustment in 2001. Statewide, about 39 percent of Current Use lands receive the recreational adjustment. The percentages vary somewhat year to year, however the relative trends among counties have remained constant. Coos County is the only county that has a majority of its Current Use lands receiving the recreational adjustment (and therefore should legally be open to traditional public access).

Rockingham and Strafford counties have the lowest percentage of acres given the 20 percent recreational adjustment. While both counties have around between 37 and 50 percent of their available land under Current Use, less than 25 percent of these lands receive this additional 20 percent recreation discount. These numbers were even lower in 1997 and 1999. In both of these years, the Department of Revenue Administration reported that Strafford and Rockingham counties had only between 6 and 15 percent of their Current Use lands receiving the recreational adjustment. Landowners tend to own smaller parcels in the southern part of the state given the greater population density. With the smaller parcel size and greater population, landowners may be more concerned

about unwanted use or liability, or may fear their lands will be subject to too much public pressure.

<b>Table 8. Current Use Lands with Recreational Adjustment</b>			
<b>County</b>	<b>Acres in Current Use</b>	<b>Acres with 20% Recreation Adjustment</b>	<b>Percentage of Current Use Acres Receiving Recreation Adjustment</b>
<b>Belknap</b>	135,710.52	48,449.56	36%
<b>Carroll</b>	215,697.56	62,566.94	29%
<b>Cheshire</b>	287,350.77	73,276.60	26%
<b>Coos</b>	755,625.29	513,556.13	68%
<b>Grafton</b>	479,390.38	169,624.63	35%
<b>Hillsborough</b>	274,365.76	67,070.54	24%
<b>Merrimack</b>	338,020.05	141,889.92	42%
<b>Rockingham</b>	167,088.3	32,348.72	19%
<b>Strafford</b>	119,997.75	21,391.22	18%
<b>Sullivan</b>	237,515.43	76,867.99	23%
<b>NH TOTAL</b>	<b>3,010,741.80</b>	<b>1,207,042.25</b>	<b>39%</b>

Source: Department of Revenue Administration, Current Use Report 2001

### State Lands

State lands are held and managed by several different State agencies. Some of the main agencies with lands open to recreational use include the Department of Resources and Economic Development, the Fish and Game Department, the Department of Environmental Services, and the Department of Transportation.

The Department of Resources and Economic Development (DRED) holds, or has an interest in, over 200,000 acres of public lands open to some level of recreational access. Lands held by DRED are identified as State Parks, State Forests, or Other Lands. Other Lands include State beaches, natural areas, wayside parks, historic sites, campgrounds and ski areas. Table 9 provides a breakdown by major category.

<b>Table 9. DRED Lands and Reservations, 2002</b>		
	<b>Properties</b>	<b>Acres</b>
State Forests	117	90,258
State Parks	41	68,022
Other Lands (wayside parks, natural areas, state beaches, campgrounds, historic sites, ski areas)	63	43,233
<b>TOTAL DRED Lands and Reservations</b>	<b>221</b>	<b>201,513</b>

Source: Department of Resources and Economic Development (DRED), 2002

While it is useful to know if a parcel is identified as a State Park or State Forest, it may be more informative to understand how these lands are managed. DRED follows four basic use-based classifications. These classifications presented in Table 10 below,

include recreation lands, forestry lands, conservation easement lands, and agricultural lands.

The majority of lands managed under DRED fall into the Forestry Lands category. These “Forestry Lands” support multiple uses and are not earmarked solely for recreational facilities. Only small portions (9,149 acres) of DRED’s lands are actually managed specifically for recreation (i.e. developed recreation facilities, picnic areas, campsites, beaches, etc.), even though there are over 68,000 acres of land labeled as State Park land. This means that a majority of the acres held by DRED - Division of Parks and Recreation (State Parks) are managed for purposes other than solely developed recreation/tourism attractions.

**Table 10. Department of Resources and Economic Development - Use Classifications**

- **DRED owns 9,149 Acres of Recreation Lands.** Recreation Lands are defined as lands that have or plan to have developed recreation and/or administrative facilities or provide moderate to high tourist attraction or user interest and include those adjoining areas that are an integral part of the same. See [State Parks and Recreation](#) for more information.
- **DRED owns 145,906 Acres of Forestry Lands.** Forestry Lands are defined as lands that are not a part of a developed recreation or administrative area. These lands support multiple uses (e.g. forestry, hiking, snow-shoeing) not associated with developed recreation (e.g. picnic areas, developed camping).
- **DRED holds a partial interest on 46,140 Acres of Conservation Easement Lands.** Conservation Easement Lands are defined as privately-owned lands where partial interest has been deeded to the State for the purpose of protecting the land from development. These lands are often subject to public access rights (e.g. hiking, snow-shoeing, nature observation).
- **DRED owns 318 Acres of Agricultural Lands.** Agricultural Lands are defined as lands leased for agricultural purposes and which are eligible for taxation by local assessing officials as provided by **RSA 72:23-I(b)**, as amended.

Source: DRED, 2002

**Fish and Game (NHFG).** According to recent estimates, New Hampshire Fish and Game has responsibility or an interest in over 33,000 acres of land. This estimate includes both lands held in fee and easement. Looking more specifically at types of holdings, NHFG owns or manages 909 acres of boat or angling access sites, 10,166 acres of conservation easements, 4,240 acres of wetlands area, 17,107 acres of upland area, and 831 acres related to fish hatcheries.

**Department of Environmental Services (DES).** The Dam Bureau within DES maintains 270 State-owned dams and 9,688 acres of property associated with many of these dams. There are over 55 public access sites at properties owned by DES. The department collaborates with towns, DRED, NHFG, the Department of Transportation, snowmobile clubs, private landowners, and other states to provide these public access

sites. Most facilities are low-impact, providing car-top/canoe access. Some of the uses of these access areas include boat launching, picnicking, snowmobiling, fishing, swimming, scenic viewing and conservation lands. The Bureau also provides assistance to dam owners and others to restore rivers to free-flowing conditions through selective dam removal. Dam removal eliminates barriers to fish and other aquatic species, and creates new, river-based recreational opportunities.

**Department of Transportation (DOT).** The DOT currently manages over 400 acres of recreation and conservation lands at 142 separate locations. Included are sites that the Department calls scenic easements, bike paths, scenic overlooks, roads to public waters, one park, and one trail. The one park is the 10-acre Hilton Park in Dover, providing a playground, picnic tables, baseball diamond, boat launch, and fishing. The Department also owns 21 scenic easements and overlooks, the biggest and most well known being the 70-acre Thirteen Mile Wood Scenic Easement in Cambridge, Dummer, and Errol along the Androscoggin River and Route 16.

### **State Park Needs**

In the summer of 2002, the DRED - Division of Parks conducted a telephone survey of State Park Managers to assess the conditions and trends of the State's park system. A total of 55 managers and regional supervisors were interviewed across DRED's three park regions; East, North and West. The East Region includes parks within the Seacoast, as well as Ahern, Bear Brook and Pawtuckaway. The North Region includes parks in Coos County and the White Mountains, as well as Wentworth State Park and White Lake State Park. The West Region includes a range of parks in Cheshire, Sullivan, Hillsborough, and Grafton Counties such as Pillsbury, Pisgah, Monadnock and Sunapee.

The brief phone survey asked questions about State Park Managers' reported quality of state park facilities and the resource base, questions about the ability of the park to meet demand, and a report of the greatest needs at individual parks. The first questions required managers to rank their park's facility and resource base conditions based on a five-point scale; ranging from poor to excellent.

In all, 11 percent of park managers felt that the conditions of their State park facilities were poor. Facilities might include restrooms, parking, picnic areas, and the like. About 42 percent felt conditions were fair (rank of 2 on a five-point scale). Approximately 4 percent ranked facilities as excellent, 15 percent said conditions were very good, and the remainder, 27 percent, gave a middle rating of "good".

Managers in the East Region gave the lowest average rating. Approximately 18 percent rated their facilities as poor, and 53 percent rated facilities as fair. The remainder rated their facility conditions a mid-rating of "good". No one in the East Region gave facility conditions a rating of "very good" or "excellent".

On average, park managers rated the condition of the natural resource base slightly higher. In all, 13 percent rated the resource base quality as "very good" or "excellent", 46 percent rated the resource base as "good". About 26 percent rated the condition of the



resource base as fair and 9 percent gave a poor rating. Park managers in the West Region gave the highest average rating, with 70 percent giving their resource base at least a “good” rating, while 61 percent in the North Region and 44 percent in the East Region gave at least a “good” rating, respectively.

Park managers were then asked if the park they manage is currently able to meet existing recreational demand. Responses were split, with about half (48 percent) indicating demand was being met, half (48 percent) said demand exceeded supply, and 4 percent giving a conditional response.

### Trails Inventory

The Office of State Planning completed the *Comprehensive Statewide Trails Study* in 1997, an update of the 1974 Trails Study, to address future trails needs, and establish a recreation-planning framework for trails. As part of this effort, general trail mileage estimates (as shown in Table 11) were developed for a range of activities. These figures were tabulated using a variety of sources, and reflect the State’s best estimates of trail mileage.<sup>5</sup>

<b>Table 11. 1997 Trails Inventory</b>	
<b>Trail Use</b>	<b>Estimated Mileage</b>
Snowmobiling	6,000
Hiking	2,800
Bicycle	1,090
X-Country Ski	345
Moto-Cross Bike <sup>6</sup>	162
Four Wheel Drive/ ATV	160
Mountain Bicycle	159
Barrier Free	74
Equestrian	67
Interpretive	33
<b>TOTAL</b>	<b>10,890</b>

**Source:** Comprehensive Statewide Trails Study (OSP, 1997)

Snowmobile trails, followed by hiking, make up the majority of trail mileage in the state. In comparing the 1997 data to the 1974 data, the Trails Study found that snowmobile trail mileage has tripled in that 23-year period and overall trail mileage has increased from 7,200 miles in 1974 to 10,890 miles in 1997. Overall trail use appears to be on the rise, at least as exemplified by trail use in the White Mountain National Forest (WMNF). US Forest Service Data indicates that there was a 23 percent increase in trail use in the WMNF between 1974 and 1995.

<sup>5</sup> While efforts were made to minimize double counting, a more detailed, updated trail inventory would be useful to better reflect the true availability of different trail opportunities across the state.

<sup>6</sup> New figures, combining Moto-Cross Bike and Four Wheel Drive/ATV, estimate mileage at 400+.

**Rail Trails.** The DRED – Bureau of Trails manages about 300 miles of State-owned rail right-of-way under a cooperative agreement with the DOT Bureau of Rail and Transit. Since 1998, the Bureau of Trails, under this agreement, has managed abandoned State-owned lines for recreation purposes. While 300 miles are listed under this agreement, only portions of these have been resurfaced for trail purposes. Many miles still have ties and ballast, requiring snow cover for safe use<sup>7</sup>.

**Bicycle Routes.** The NH Department of Transportation (DOT) in conjunction with the Bicycle and Pedestrian Transportation Advisory Board and New Hampshire's Regional Planning Commissions recently produced a set of regional bicycle maps, one for each of New Hampshire's seven travel regions. These transportation maps provide information on both statewide and regional bicycle routes. This information is available on the web at [DOT's Bicycle/Pedestrian Information Center](#) or in hard copy.

**Trails and Greenways.** There are many different types of trail and greenway efforts underway in the state. Below are several main efforts in the state, though certainly not an exhaustive list. For instance there is the Monadnock Sunapee Greenway connecting Mt. Monadnock in Jaffrey, NH with Mt. Sunapee in Newbury, the evolving Wantastiquet-Monadnock Greenway linking Mt. Wantastiquet in Hinsdale with Mt. Monadnock in Jaffrey and Rindge, as well as the Sunapee Ragged Kearsarge Greenway (SRKG). The SRK Greenway Coalition is working on two new linking trails that will expand their current 75-mile loop around Lake Sunapee.

Some trails not only link New Hampshire communities but also cross state lines. Beyond the well-known Appalachian Trail, some smaller interstate trails also include the Metacomet-Monadnock Trail and the Wapack Trail, both linking communities in other states to New Hampshire via foot trails. Another example includes the Cohos Trail up in the northernmost part of the state. This corridor travels from Bartlett up to the Canadian Border in Pittsburgh and is envisioned to connect with trails in Quebec.

The Heritage Trail, as envisioned, will be a 230-mile walking path, extending from Massachusetts to Canada, along the Merrimack, Pemigewasset and Connecticut Rivers. Individual community efforts are still underway formalizing the miles of trail that are part of the Heritage Trail system. Smaller river corridor trail systems include the Winnepesaukee River Trail from Center Harbor to Franklin, the Piscataquag River Trail in Manchester, Goffstown, New Boston, and the Souhegan River Trail in the towns of Merrimack, Amherst, Milford and Wilton.

Beyond hiking and pedestrian trails there are water trails as well. The Connecticut River Water Trail travels along full length of the Connecticut River in Vermont and New Hampshire. The Connecticut River Joint Commissions recently published a map and guidebook of this entire trail for boating enthusiasts.

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<sup>7</sup> A statewide rail-trail inventory depicting rail-trail ownership and condition would be helpful for determining the quality and usability of these rights-of way.

## RECREATION DEMANDS AND NEEDS

### National Facts and Figures

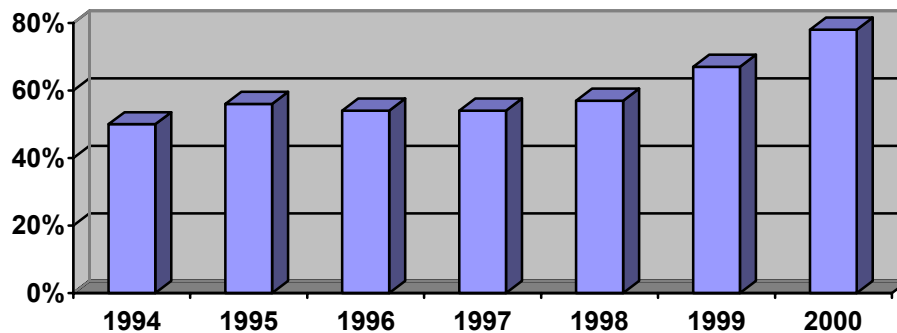
There are several nationwide studies, conducted on a regular basis, that help to frame recreational demand in the US. These studies are particularly helpful in identifying broad trends and understanding public attitudes. The following section provides a summary of nationwide statistics, and is presented to set a foundation for statewide information and data.

Since 1994, Roper-Starch Inc. has conducted a yearly national survey on recreation. This past year, the survey measured participation levels for outdoor recreation activities, assessed attitudes about outdoor recreation, and explored outdoor recreation's relationship to current issues of concern and the environment. This information, while not specifically focused on New Hampshire, provides general insights concerning recreation demand and need in the country and offers some information about trends.

According to this study, 66 percent of Americans engage in some type of outdoor recreation at least several times during an average month, while 78 percent engage in some type of outdoor recreation activity at least once a month. Participation in outdoor recreation seems to be increasing, both in terms of the number of participants and in how frequently they participate. This survey reported that 34 percent of Americans participated in outdoor recreation at least several times a week in 2000, as compared to 20 percent in 1998 and 15 percent in 1994.

Figure 4 shows that the percentage of people who engage in some kind of outdoor recreation activity at least once a month has increased as well. Over three-fourths (78 percent) of Americans participated in outdoor recreation at least once a month in 2000 as compared to one-half in 1994 (50 percent).

**Figure 4. Outdoor Recreation Participation: At Least Once a Month**



Source: Roper Starch Worldwide Inc., Outdoor Recreation in America 2000

Importantly, these trends appear consistent across age and income levels. Comparing 1999 to 2000, Roper Starch Inc. reported that all age groupings reported higher participation rates. Namely, monthly participation among 18-29 year olds increased from 77 percent to 86 percent and from 73 to 86 percent among 30-44 year olds. Even the grouping of 60 + year olds increased outdoor recreation participation from 48 percent to 62 percent. Participation also increased across income levels. Using 1994 as a benchmark, participation in outdoor recreation (at least once a month) increased among low-income Americans (under \$15,000 a year) from 37 percent up to 65 percent, as well as among those with higher incomes (above \$50,000 a year), from 65 percent up to 89 percent.

In terms of activity preferences, this survey reported rigorous walking was the most popular activity reported in 2000. Sixty-two percent of Americans participated in some kind of rigorous walking, be it hiking or walking for fitness/recreation. Other popular activities include swimming (39 percent), picnicking (36 percent), viewing wildlife (25 percent) and road biking (23 percent).

Comparing this data with another major national survey provides a more complete assessment of general recreational demand and trends in participation. The widely cited National Survey on Recreation and the Environment (NSRE) provides a detailed and comprehensive study of nationwide recreational demand. This study has been conducted periodically over the last 40 years, with data from the 1960s up to the present day. The last full study was completed in 1994, but an updated version (NSRE 2000) is again underway. While a complete report of NSRE 2000 is not yet available, several smaller reports, providing updated demand information on a host of activities, are available and have been used here along with information from the 1994 and 1983 studies.

According to the 1994 NSRE survey, almost 95 percent of Americans had participated in at least one of the 80 surveyed forms of recreation (within the preceding 12 months). The most popular activities include walking, visiting a beach or other waterside, gathering outdoors with family and friends, and sightseeing. The popularity of these activities can be attributed to the fact that all are relatively low cost, do not require specialized equipment or settings (e.g. rock-climbing), and can often be participated in close to home.

Table 12 provides a comparison of participation rates between 1994 and 2000 for 16 different activities. Data indicates that participation rates have increased or remained stable for most activities. Walking for exercise/pleasure remained the most common activity and has actually increased in popularity over that six-year period. This survey reports that 83 percent of Americans ages 16 or older have walked for exercise/pleasure as compared to 67 percent in 1994. Wildlife viewing/photography, bicycling, and day hiking have all shown an increase in participation by about 10 percent or more.

**Table 12. Nationwide Participation Rates in 1994 and 2000**

<i>Selected findings from NSRE 2000 and 1994</i>	Percent of Americans 16 years of age or older who participate	
<b>SELECTED ACTIVITIES</b>	<b>2000</b>	<b>1994</b>
Walking for Exercise/Pleasure	83.3%	66.7%
Swimming (lake, river, ocean)	42.1%	39%
View, identify, photograph other wildlife	44.7%	31.2%
Bicycling	39%	28.7%
Day Hiking	33.2%	23.9%
View, identify, photograph birds	32.5%	27%
Fishing (freshwater)	29.4%	24.4%
Camp at developed sites	26.2%	20.7%
Motor-boating	24.6%	23.4%
Outdoor Team Sport	22.9%	26.4%
Drive off Road for recreation	17.5%	13.9%
Camp at Primitive Site	15.9%	14%
Hunting	11.4%	9.3%
Horseback Riding	9.8%	7.1%
Downhill skiing	8.5%	8.4%
Snowmobiling	5.6%	3.6%

**Sources:** National Survey on Recreation and the Environment (NSRE), 2000 (Versions 1-8); National Survey on Recreation and the Environment (NSRE), 1997.

### **Participation Trends 1982-1994**

To give a more historical context to recreation participation, researchers have examined a wide range of activities and identified trends in participation. In this study, participation is evaluated by millions of Americans who participate as well as by percentage of population who participate. Reporting on numbers instead of percentages provides a better look at overall demand because it takes population growth into consideration.

The data shows that participation (reported by millions of Americans) went up for most activities between 1982 and 1994. In all, 25 of the 31 activities compared in the two surveys showed an increase. However, even if participation rates decline slightly or stay consistent, the sheer number of people participating will rise due to population gains. This means that overall, there is more demand, as defined by numbers of participants, for most recreation activities now than there was 20 years ago. So even if the percentage of people who participate in boating stays the same, there are still millions of additional participants enjoying the activity because of population growth.

The activities with the highest average increase in millions of Americans participating include bird watching, hiking, downhill skiing, primitive area camping, walking and swimming. The only activities that showed an actual decrease in millions of Americans who participated (between 1982-1994) were hunting, fishing, sailing, tennis, horseback riding, and ice-skating, though many of these activities seem to be stabilizing according to the 2000 data.

Overall participation rates can be modified by several factors including age, gender, income and education. For most activities, participation rates decline with age, increase with income (up to a certain level) and education, and increase with average household size. Males often have higher participation rates than females, and Caucasians tend to have higher participation rates for most activities than other racial or minority groups.

These modifiers are certainly oversimplifications and, as always, there are some exceptions. Using outdoor team sports as an example, males are more likely to compete in outdoor team sports than females, and those who are 16 to 24 years old are far more likely to participate than older generations. Interestingly, however, as education increases participation in outdoor team sports decreases.

Several other trends of interest include the following:

- Participation in fitness activities is high for both men and women, and across age and income levels. Almost 50 percent of people over 60 years old say they walk outdoors for recreation or exercise.
- Participation in all boating increases with income levels and increases as the number of people in the household increases.
- Until a person reaches age 60, the likelihood of participation in hunting or fishing declines only slightly.
- Participation in non-motorized boating declines steadily with age, but participation in motor boating remains quite high for those over 50.

### **Participation in the Northeast United States**

Beyond nationwide estimates, the National Survey on Recreation and the Environment divided the 1994 data by area to draw general comparisons across four broad regions of the US. This regionalized data, though not as definitive as statewide data, does give additional context to nation-wide participation rates. This analysis broke the US into four major regions; the Northeast, Midwest, South and West. The Northeast region ranges from New Jersey and Pennsylvania up through Maine, and includes New Hampshire. Thirteen groups of activities were compared across the four regions. For some activities participation was similar across regions, for others there were regional variations. Some of the findings directly related to the Northeast include the following:

- Participation in team sports is slightly higher in the Northeast than the other three regions.
- Participation in snow and ice activities is higher in the Northeast than the other three regions.
- Participation in camping is lower in the Northeast than in the West.
- Participation in hunting and fishing is lower in the Northeast than the other three regions.
- Participation in swimming is higher in the Northeast than the other three regions.

## **New Hampshire Statistics**

The *2001 National Survey on Fishing, Hunting and Wildlife-Associated Recreation* provides national and statewide level data for several wildlife related activities. A preliminary report summarizing New Hampshire data is now available through the US Fish and Wildlife Service and is summarized below. A final report for New Hampshire is expected in 2003.

These national and statewide surveys provide data about New Hampshire residents, as well as data about the state itself. Specifically, data is available on the level of participation and expenditures by New Hampshire residents within the entire United States, and on the levels of participation and expenditures by residents and non-residents alike within the state of New Hampshire. Summarized below are participation rates for New Hampshire residents and participation totals and expenditures within the state of New Hampshire by residents and non-residents.

In all, this 2001 survey found that 53 percent of New Hampshire residents, who are 16 years old or older, participated in hunting, fishing, and/or wildlife watching activities. About 47 percent of residents take part in wildlife watching (observing, feeding, or photographing wildlife) and 18 percent take part in either fishing or hunting.

Using 2001 data, wildlife-associated recreation contributed \$619 million in expenditures within New Hampshire. This includes expenditures for fishing, hunting, items used for both fishing and hunting, and lastly, wildlife watching. Equipment purchases accounted for \$308 million, licenses, leases, landownership and contributions accounted for \$42 million, and trip related expenditures accounted for the remainder of \$269 million.

New Hampshire saw a total of 267,000 anglers in 2001. Combined, these anglers fished for 3.2 million days and spent nearly \$165 million on fishing related expenditures in the state. About 55 percent of all anglers in New Hampshire are residents and about 45 percent are non-residents, though residents account for over 81 percent of all fishing days. The average angler fished 12 days a year, and spent a total of \$618 a year in angling related expenses.

New Hampshire saw a total of 78,000 hunters in 2001. Combined, these in-state and out-of-state hunters participated in 1.46 million days of hunting and spent over \$71 million in hunting related expenses in-state. About 67 percent of all hunters who hunt in New Hampshire are state residents. Approximately 18,000, or 33 percent of the total, are non-resident hunters. However, non-residents accounted for only 22 percent of all hunting days in New Hampshire in 2001. The average participant hunted 18.7 days.

New Hampshire saw a total of 766,000 participants in wildlife watching activities in 2001. Nonresidential participation, defined as at least one mile or more from home, consisted of 425,000 participants. Of this “nonresidential” grouping, 105,000 were state residents and 320,000 are from out-of-state. Residential participation, defined as being less than one mile away from home, consisted of 445,000 participants. Wildlife watching

contributed nearly \$343 million in expenditures in New Hampshire. Breaking this down, approximately \$177 million was spent on trip related expenditures, over \$148 million was spent on equipment, and over \$17 million was spent on “other” expenses such as membership dues, contributions and magazine subscriptions.

**Wildlife-Related Recreation Trends.** The 2001 version of this dataset can be compared against 1996 data. In comparing broad estimates from both studies, it appears there was little change in participation for fishing, a slight decrease in hunting, and a similar number of total participants in nonresidential (travel 1 mile or more) wildlife watching. However of these non-residential wildlife watchers, 258,000 were estimated to be from out-of-state in the 1996 study and 320,000 were estimated to be from out-of-state in the 2001 study. Residential (within a mile of home) wildlife watching showed an increase. Fishing expenditures decreased in this five-year period, where as hunting expenditures increased slightly and wildlife watching expenditures increased from a total of \$282 million up to \$343 million.

### **Statewide Recreational Demand**

Since the last SCORP was completed in 1994, two public opinion surveys were undertaken related to outdoor recreation in New Hampshire. Both were completed through the University of New Hampshire (UNH) and provide much more detailed figures on participation than had ever before been available in the state.

The first study, 1997 *Statewide Outdoor Recreation Needs Assessment*, completed by UNH for the Office of State Planning, consisted of a statewide assessment of recreation in New Hampshire. This assessment provides baseline information on household participation rates for 60 different types of recreational activities, as well as attitudes about spending priorities, major recreational issues, and reasons for participating. A summary report, with details about response rates, data design, and data results can be found in **Appendix A**.

**Participation.** The activities listed in Table 13 below offer a snapshot of household participation and frequency of participation. This data provides baseline information that future studies can build upon to better understand trends and changes in participation rates over time<sup>8</sup>.

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<sup>8</sup> In preparation for the ensuing SCORP report in 2008, a follow-up statewide or regional outdoor recreation demand and need assessment should be conducted to identify trends and changing attitudes.



<b>Table 13. Participation Rates and Frequency of Participation</b>			
	<b>Overall Household Participation</b>	<b>Percent who participate 1-6 times a year</b>	<b>Percent who participate 7 + times a year</b>
Wildlife Observation	85%	35%	50%
Driving for Pleasure	84%	32%	52%
Sight-seeing	84%	45%	39%
Jogging/Running/Walking	79%	17%	62%
Day Hiking	73%	48%	25%
Stream/Lake Swimming	71%	37%	34%
Picnicking	68%	49%	19%
Photography	64%	37%	27%
Ocean Swimming	58%	40%	18%
Bicycling	55%	29%	26%
Outdoor Pool Swimming	54%	26%	28%
Freshwater Fishing	50%	23%	27%
Nature Study	47%	33%	14%
Canoeing/kayaking/rowing	45%	33%	12%
Motor-boating	43%	23%	20%
Playing on playgrounds	40%	20%	20%
Tennis/Volleyball/Golf	37%	16%	21%
Baseball/basketball/soccer	36%	14%	22%
Downhill Skiing	35%	17%	18%
Camping in National Forest	33%	30%	3%
Camping at State Parks	31%	26%	5%
Cross-country skiing	31%	20%	11%
Backpacking	29%	24%	5%
Camping at Private Campground	28%	21%	7%
Mountain biking	27%	15%	12%
Large Game Hunting	25%	10%	15%
Off-road Vehicle Driving	21%	13%	8%
Snowshoeing	20%	13%	7%
Snowmobiling	19%	9%	10%
ATV	17%	6%	11%
Bird Hunting	17%	9%	8%
Water-skiing	17%	11%	6%
Horseback Riding	15%	10%	5%
Sailing	14%	10%	4%
Sea Kayaking	4%	3%	1%

**Source:** 1997 NH Outdoor Recreation Needs Assessment (UNH)

According to this statewide study, many of the most popular activities in New Hampshire are similar to those identified in nationwide studies. Wildlife observation, driving for pleasure, sightseeing, and jogging/running/walking are extremely popular activities. Additionally, these activities show the highest frequency of participation. For instance, 79 percent of households participated in jogging/running/walking activities in the previous year, and 62 percent of households had done so at least seven or more times that year. Taking another example, 71 percent of households had gone swimming in a stream or lake in the previous year. Breaking this down further, about 34 percent participated seven or more times a year, and 37 percent had participated one to six times a year.

This study suggests that day hiking may be more popular in New Hampshire than nationally. Seventy three (73) percent of New Hampshire households went day hiking in the previous year. A full 25 percent of all households had done so 7 or more times that year.

**Spending Priorities.** Another section of the survey asked respondents to rank comparatively how future monies should be spent on a range of outdoor recreation and conservation programs and projects. The programs/projects had to be ranked as either a low, moderate, or high priority, with the understanding that funding is limited so if some programs are ranked high, others must be ranked lower.

Programs related directly to protecting the resource base tended to receive the highest average ranking of the list of 20 plus programs. About 82 percent considered the protection or improvement of water quality in rivers, streams, lakes, and ponds a “high” priority. Nearly 57 percent of respondents said that preservation or restoration of native wildlife should be given a “high” priority. Almost 40 percent gave the acquisition of lands for conservation, open space or habitat protection a “high” priority ranking. Other programs that received the greatest average of “high” ratings included enforcement of environmental laws (44 percent) and wetland preservation/protection programs (38 percent).

Several questions looked specifically at priorities for providing, improving or adding additional types of recreation opportunities. While these, in general, received lower average rankings than many of the resource protection programs, some insights can be gained from considering these recreational programs relative to one another.

Table 14 shows that improved maintenance of existing park facilities received a higher average ranking than providing additional facilities for outdoor recreation sports or the construction of more multi-purpose trail systems. This gives some public support for maintaining opportunities that exist over solely expanding and creating new opportunities. About 28 percent of state residents ranked insuring access to the state’s public waters a high priority. Though this does not provide data on what type of access is desired, residents do feel it is important, in principle, that these waters are made accessible. Residents gave a similar priority ranking to providing wildlife viewing areas, expanding multi-purpose trail systems, and providing incentives to encourage recreation on private timber lands.

<b>Table 14. Perceived Spending Priorities for Outdoor Recreation</b>			
	<b>Low Priority</b>	<b>Moderate Priority</b>	<b>High Priority</b>
Insure access to NH's public waters	24%	48%	28%
Improved maintenance of existing park facilities	15%	61%	24%
Wildlife viewing areas	37%	46%	17%
Construction of more multi-purpose trail systems	40%	46%	14%
Incentives to encourage the provision of outdoor recreation opportunities on private timber lands	46%	40%	14%
Provide more facilities for outdoor recreation sports and activities (golf, baseball, tennis)	64%	27%	9%

**Source:** 1997 NH Outdoor Recreation Needs Assessment (UNH)

**Management Objectives.** Another section asked respondents to rank the importance of a variety of conservation and recreation-related management objectives. Similar to funding priorities, management objectives related to protecting New Hampshire's resources received the highest average ranking. Examples include protecting drinking water, native plants/animals, and protecting natural areas from development.

Five questions centered either on recreation or tourism related objectives. Table 15 provides a breakdown by three collapsed levels of importance. In general, a majority of residents felt that providing non-motorized recreation opportunities was of high importance. About 61 percent indicated that providing non-motorized recreation was either very or most important, compared to about 21 percent who felt motorized recreation very or most important, and about 19 percent who felt that opportunities requiring a high level of development were very or most important. Only 7.5 percent of all respondents said that providing for non-motorized recreation was either not important or only of minor importance. This compares to about 53 percent for motorized recreation and 53 percent for recreation that requires a high level of development.

<b>Table 15. Importance of Selected Recreation-related Management Objectives</b>			
	<b>Not/Minor Important</b>	<b>Important</b>	<b>Very/Most Important</b>
To provide opportunities for non-motorized recreation	7%	32%	61%
To attract tourists to New Hampshire	30%	31%	39%
To provide opportunities for motorized outdoor recreation	53%	26%	21%
To provide a source of revenue for the owners or managers of natural and cultural resources	41%	39%	20%
To provide the opportunity for outdoor recreation activities which require a high level of development	53%	28%	19%

**Source:** 1997 NH Outdoor Recreation Needs Assessment (UNH)

These figures should not be interpreted to mean that motorized recreation or developed recreation opportunities are completely unimportant and consequently should not be given any consideration. Rather it suggests that a broader range of residents participate in non-motorized recreation and accordingly, a larger percentage feel it is important to maintain these opportunities. Keep in mind that many who participate in activities that require development (e.g. golf, skiing) or motorized activities (e.g. wheeled off-highway recreation vehicle, snowmobile) also enjoy hiking, canoeing and other non-motorized activities. Non-motorized recreation, especially walking/hiking, can be enjoyed without a great deal of equipment or investment. And, as borne out by national and statewide data, these activities tend to have the highest participation rates.

With this in mind, this information suggests that non-motorized activities should continue to be a major focus in New Hampshire's outdoor recreation management. In addition, while overall statewide participation rates tend to be lower for motorized or developed recreation, those who do participate tend to participate quite often and their needs cannot be disregarded. A considerable percentage of state residents (~ 20 percent) feel that developed recreation and motorized recreation, respectively, are a very or the most important recreational management objective.

**Regional Considerations.** Further analysis of this data conducted by the University of New Hampshire suggests that differences exist between residents depending on where they live in the state and by how long they have lived here. In this analysis, several different groups were identified. To examine differences between those who have lived in New Hampshire all of their lives versus those who have moved here, groups were developed for New Hampshire 'natives' and New Hampshire 'non-natives'. In addition, responses were also analyzed by classifying respondents as where to they live in the state. The two categories that were developed consisted of 'metro' and 'non-metro'.

This metro/non-metro classification considers the southeastern area of Merrimack, Hillsborough, Strafford and Rockingham Counties as the "metro" area, and Coos, Carroll, Belknap, Grafton, Sullivan and Cheshire Counties as the "non-metro" area. This division was derived based on an examination of average population per square mile. The four-county "metro" area contains 73 percent of the state's population and occupies 32 percent of the land base. The average population per square mile is 313.25. The six-county "non-metro" area occupies 68 percent of the land base but only 27 percent of the population with an average population per square mile of 69.16. This basic classification provides an interesting, albeit rough, starting point for examining potential differences between different parts of the state.

Responses for natives and non-natives, as well as metro areas and non-metro areas, were compared across several classes of outdoor recreation activities. Responses were also examined across motivations for participation and across attitudes about recreation management and the environment. Below is a summary of some recreation participation

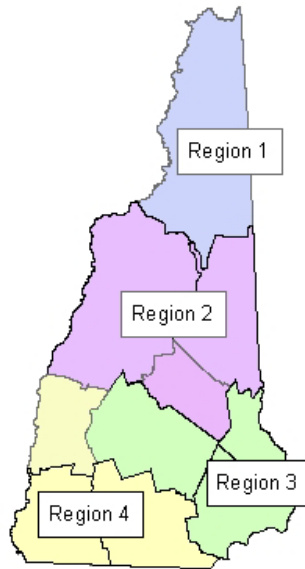
and attitudinal differences between native and non-native classifications, as well as between the two metro/non metro classifications.

- Natives have higher participation rates than non-natives for several different outdoor recreational activities including hunting, fishing, motor sports, activities that require developed settings, and active pursuits (e.g. such as swimming, jogging, hiking, rock climbing, etc.).
- Non-metro respondents (Coos, Belknap, Grafton, Carroll Counties) have higher participation rates in hunting than metro respondents.
- Motivations for participation in outdoor recreation are generally the same for natives and non-natives. However, non-metro respondents who have moved to New Hampshire since the 1970's were more motivated to participate in recreation as an 'escape' than were natives.
- Non-metro respondents tend to have stronger preferences for management objectives related to environmental protection than those from metro areas. Native respondents from non-metro areas were an exception.
- Non-natives consider wetland protection more of a funding priority than natives.
- Natives are more supportive of higher fees for non-residents than are non-native residents, but are the least supportive of higher in-state fees to support outdoor recreation management/development.
- Non-metro residents, in general, tend to be less supportive of higher fees than metro residents.

## **Demand for Water Access**

**Overview.** In 1997, the University of New Hampshire completed a statewide assessment for the New Hampshire Fish and Game Department to examine the need and demand for public access to lakes, ponds and rivers in the state. This study provides baseline statistics about what lakes, ponds and rivers people go to, what they like to do, and general attitudes about public access needs in the state.

Data in the telephone survey portion of the study was collected so that statistically significant comparisons could be drawn across four major regions of the state. The regions represent the four New Hampshire Fish and Game Department management regions and are drawn along county lines. As illustrated by Figure 5, Region 1 consists of Coos County, Region 2 consists of Belknap, Grafton and Carroll Counties, Region 3 Consists of Rockingham, Strafford and Merrimack Counties and Region 4 consists of Hillsborough, Cheshire and Sullivan Counties.

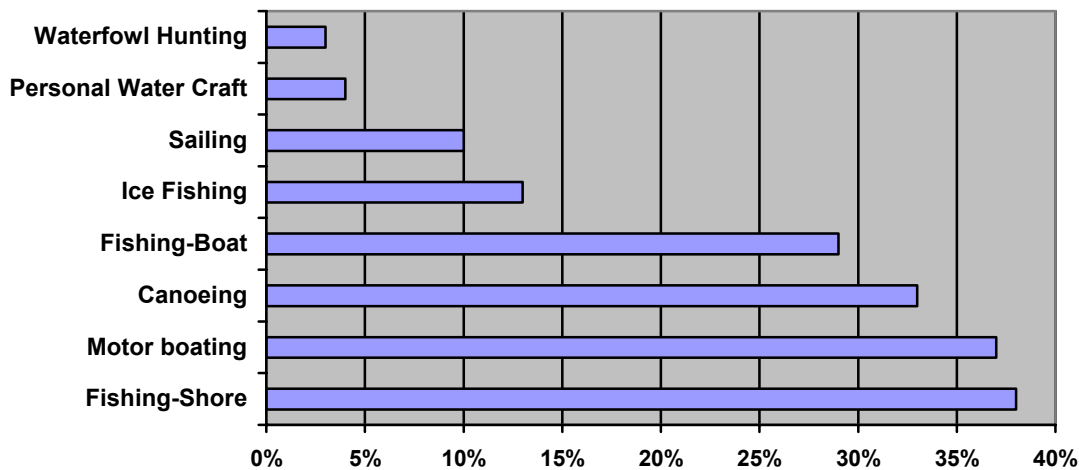


**Figure 5. NH Fish and Game Management Regions**

**Participation.** Overall, this survey found that 66 percent of households participated in an outdoor activity on a lake, pond or river in New Hampshire within the previous 12 months. Those who did not participate indicated a lack of time or money as the most important reasons for not participating. Households in Region 2 (Belknap, Grafton, Carroll Counties) had higher overall participation rates (72 percent) than the rest of the state. This is not surprising given the substantial surface water resources available in this region of the state.

Figure 6 provides a sampling of statewide household participation for a range of water-related activities. Of those activities specifically explored in this study, fishing from shore was the most popular, followed by motor boating, canoeing, and fishing from a boat.

**Figure 6. Household Participation in Water-Based Activities**



Source: NH Public Access Needs Assessment - Statewide Summary Report (UNH, 1997)<sup>9</sup>

Regional comparisons show that participation rates for several water-based activities varied within the state.

- Residents in Region 1 (Coos County) are more active in ice fishing and fishing from shore than residents of other parts of the state.
- Residents in Region 2 (Grafton, Belknap, Carroll Counties) are more likely to participate in motor boating, canoeing and sailing than residents in other parts of the state.
- Residents in Region 3 and Region 4 (southern counties) show similar overall participation patterns.

**Visitation.** Survey respondents were also asked to list the water body their household uses most often. Table 16 presents the most visited lakes, ponds and rivers on a statewide level. Lake Winnepesaukee, not surprisingly, was the most popular destination listed statewide. Only residents in Coos County (Region 1) had higher demand for other locations. For these residents, the Connecticut River was most popular followed by the Androscoggin River, Lake Umbagog, Forest Lake and, finally Lake Winnepesaukee.

**Table 16. Most Visited Lakes, Ponds and Rivers in NH**

- Lake Winnepesaukee
- Lake Sunapee
- Merrimack River
- Connecticut River
- Winnisquam Lake
- Newfound Lake
- Lake Pawtuckaway
- Squam Lake
- Lake Massabesic

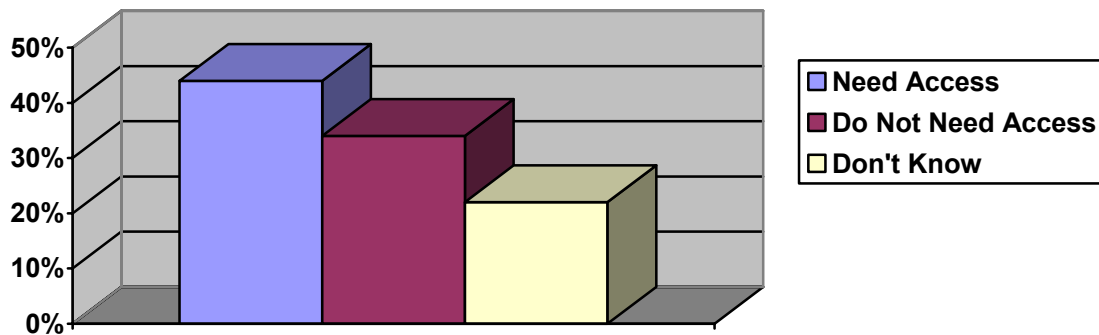
<sup>9</sup> Swimming was not explicitly studied in this project. The study's purpose was to provide the New Hampshire Fish and Game Department with data for estimating boating, fishing and hunting preferences.

By far, (65 percent) the most popular reason respondents gave for visiting an area most often was that it is close to home/relatives or near someone they knew with access. Only seven percent of respondents visited their favorite area because of nice scenery or clean water, respectively. As with many land-based activities, convenience is a key to participation.

Another question asked respondents if there were specific locations they would like to visit but did not because of problems with access. Lake Winnepesaukee was identified most often in each of the four regions. In Coos County (Region 1) Lake Winnepesaukee and Connecticut River were listed most often, followed by Lake Umbagog, Big Diamond Pond and Phillips Pond. In Region 2 (Belknap, Carroll and Grafton Counties) Lake Winnepesaukee, and Squam Lake were mentioned most often. In Region 3 (Strafford, Merrimack and Rockingham Counties) Lake Winnepesaukee was again listed most often followed by the Merrimack River and Squam Lake. In Region 4 (Cheshire, Sullivan and Hillsborough Counties) Lake Winnepesaukee was listed most frequently followed by the Merrimack River and Lake Sunapee.

**Attitudes.** Overall, a majority of state residents view public access issues as being important or extremely important. Sixty-eight (68) percent of residents feel that the decisions the State makes about public access issues are important or extremely important. Respondents (Figure 7) were also asked if New Hampshire needs additional access to lakes, ponds, and rivers. About 44 percent of respondents indicated that New Hampshire needed additional access. This compares with 34 percent who did not want additional access and 22 percent who did not know.

**Figure 7. Does NH Need Additional Water Access?**



**Source:** NH Public Access Needs Assessment - Statewide Summary Report (UNH, 1997)

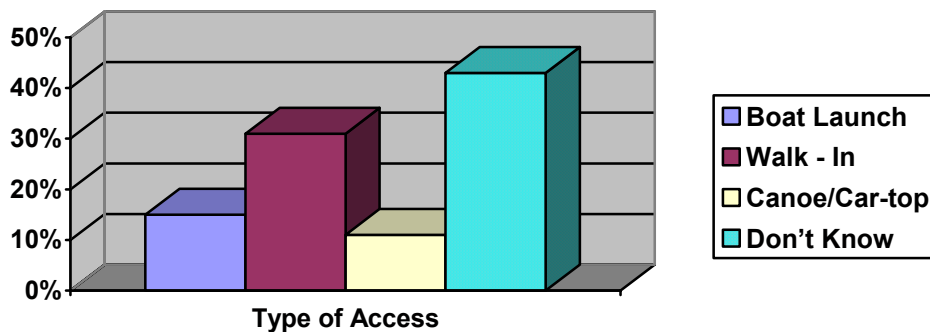
In examining regional variations, residents in Region 1 and Region 2 were less likely to state that New Hampshire needs additional access as compared to those in Region 3 or Region 4. Over 42 percent in Regions 1 and 2, respectively, indicated that there was no need for additional types of access facilities as compared with 34 percent in Region 3 and



only 29 percent in Region 4. This is significant because Region 3 and 4, together, make up a majority of the state's population. Managers may want to consider developing opportunities for access in the southern part of the state to provide additional opportunities near the larger population bases.

Respondents were then asked which type of access should be given priority. Figure 8 shows that 43 percent did not know or felt no priority should be given. Thirty-one (31) percent felt walk-in sites should be given priority, while only 15 percent chose boat launches and 11 percent chose canoe/car-top access, respectively.

**Figure 8. What Type of Access Should Be Given Priority?**



**Source:** NH Public Access Needs Assessment - Statewide Summary Report (UNH, 1997)

About 51 percent of those who participated in the telephone survey also completed a more detailed follow-up mail questionnaire. Since this group is self-selected, the information that follows does not necessarily represent the 'general public'. However, these findings do provide a good indicator of the viewpoints and attitudes of those residents who tend to be more active or more experienced with water-based recreation. This group, given their interest in the survey, may represent a population that is comparatively more interested in the decisions the State makes about water-based recreation in New Hampshire.

Mail survey respondents were asked to rate the importance of different lake or river characteristics as part of their recreational experience. Overall, the most important characteristics relate to safety and the natural character of an area. Over 70 percent of this sample indicated that having a safe area for recreation was extremely or very important. Other highly important characteristics include the presence of wildlife and birds as well as undeveloped shorelines and natural features.

The most common recreational activities include picnicking, sunbathing, swimming, relaxing/doing nothing, and walking or hiking along shore. Again, these figures support other studies that report on the high popularity of activities that require little equipment, can take place in many locations, and can be participated in by young and old alike.

Respondents were asked to identify their priorities for improving water-based or water-enhanced (e.g. sunbathing, walking/hiking along shore) recreation in the state. A series of nine potential priorities were ranked. The top three priorities, according to this group, include improved information, better design and maintenance of existing facilities, and improved enforcement at public access sites. The lowest priorities within these nine categories centered on building additional types of public access facilities. The lowest ranking was given to building more fishing piers, followed by canoe/car-top facilities, boat launch facilities and shore bank-fishing opportunities. This data suggests that the NH Fish and Game Department's continued focus on refurbishing existing access sites is a good management strategy. Again, residents recognize the importance of providing quality experiences at existing sites, not just expanding on the overall quantity of sites.

When asked about the severity of different management problems on lakes, ponds and rivers in the state, respondents reported that excessive horsepower of powerboats, inconsiderate behavior of others, and human waste were some of the most serious problems based on their experience. Other issues reported most often as "moderate problems" included pollution caused by outboard motors and lack of enforcement of boating rules and regulations.

Another series of questions focused on viewpoints about several public access issues and concerns. One set of issues centered on people-related concerns. Almost two-thirds of respondents agreed that litter is a problem at most access sites. About 54 percent consider public safety to be a concern at boat launch facilities, and nearly 50 percent of respondents felt that there should be more supervision and security at public access sites. These responses add weight to the high priority given for better enforcement at public access sites.

Another trio of questions helped to frame public perceptions concerning the use of a lake, pond or river alongside this use's potential impacts on the resource base. Sixty five (65) percent agreed that water quality is risked when a water body is opened up to more access by the public. A slightly higher number (68 percent) of respondents said that protecting water quality is more important than providing the public with additional opportunities for water-based recreation. Fifty-eight (58) percent agree that New Hampshire will lose the natural quality of some lakes, ponds and rivers if more water access is developed. Again, many recreationists consider the impacts of additional access and are interested in efforts aimed at protecting the quality of the experience.

## **New Hampshire Licenses and Registrations**

**Fish and Hunting Licenses.** National surveys indicate that participation in fishing and hunting has remained relatively constant or has decreased slightly in the last decade. New Hampshire license figures (Table 17) support this general trend. In general both in-state and out-of-state fishing permit numbers have remained fairly constant in the past 10 years, while hunting permits have decreased slightly as have resident combination licenses. While these numbers do not provide any information about the frequency of

participation (how many days a year), it appears that the total number of anglers and hunters is not increasing over the years.

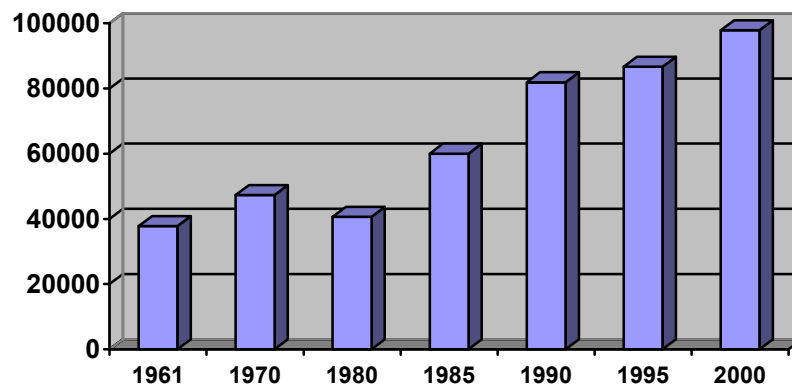
**Table 17. Fishing, Hunting and Combo Licenses in New Hampshire**

	1991	1993	1995	1997	1999	2001
<b>Resident Fishing</b>	71,226	68,180	72,509	74,771	76,175	74,449
<b>Non Resident Fishing</b>	22,757	23,260	24,213	23,710	23,571	23,864
<b>Resident Hunting</b>	25,936	26,421	25,095	24,053	23,416	21,638
<b>Non Resident Hunting</b>	9,641	9,935	9,973	9,785	10,347	8,799
<b>Resident Combo</b>	39,576	38,647	36,957	35,503	34,694	32,192
<b>Non Resident Combo</b>	N/A	N/A	31	1,270	1,548	1,590
<b>TOTAL</b>	169,136	166,443	168,778	169,751	169,751	162,532

Source: NH Fish and Game Department Files, 2002

**Boating Registrations.** Boating registrations in New Hampshire, on the other hand, have increased substantially in the last four decades. Figure 9 shows that while numbers remained somewhat steady in the 1960's and 1970's, registrations have increased sharply in more recent years. New Hampshire reported approximately 39,000 boat registrations in 1980. This figure rose to almost 98,000 in 2000. Registrations doubled between 1980 and 1990 alone, and have increased over 19 percent between 1990 and 2000. These demand trends support continued emphasis on access-site maintenance, enforcement, improved boater information and education as highlighted by respondents to the 1997 Public Access to Lakes, Ponds and Rivers survey, as well as continued efforts to create additional water access.

**Figure 9. Boating Registrations in New Hampshire**



Source: Department of Safety, Division of Motor Vehicles. 2002

**Snowmobile and Wheeled Vehicle Registrations.** Table 18 shows that New Hampshire has also seen a growth in snowmobile and wheeled vehicle registrations. There were approximately 43,000 snowmobile registrations sold in 1995/96 and 1996/97, respectively, and about 54,000 registrations sold this past 2001/02 season. While some variation exists year to year because of differing snow conditions, it is clear that registrations are on the rise and that most of this increase is due to out-of-state use.

Wheeled vehicle registrations have increased significantly in the last seven seasons. The New Hampshire Fish and Game Department reported over 10,500 in-state registrations and 1,362 out-of-state registrations in 1995/96. This figure rose to almost 21,000 in-state registrations and 4,670 out-of-state registrations in 2001/02. In-state registrations have almost doubled over this seven-year time period and the out-of-state registrations have more than tripled. This increase will command continued or expanded attention from resource managers as popularity and demand for motorized trails increase.

<b>Table 18. Wheeled Off Highway Vehicle and Snowmobile Registrations</b>				
	<b>RESIDENT</b>		<b>NON-RESIDENT</b>	
	<b>Snowmobile</b>	<b>Wheeled Vehicle</b>	<b>Snowmobile</b>	<b>Wheeled Vehicle</b>
<b>1995/96</b>	34,468	10,556	8,824	1,362
<b>1996/97</b>	32,900	13,005	9,422	1,675
<b>1997/98</b>	36,723	10,054	14,101	1,738
<b>1998/99</b>	36,406	11,015	13,056	1,888
<b>1999/2000</b>	39,391	14,717	15,320	2,714
<b>2000/2001</b>	46,686	18,744	18,835	3,656
<b>2001/2002</b>	36,294	20,973	18,363	4,670

**Source:** NH Fish and Game Department Files, 2002

## **Travel and Tourism**

**Statewide Figures.** Tourism represents one of the main sectors of the state's economy. According to the *Travel Economics Report (FY2000)* prepared for the DRED - Division of Travel and Tourism Development by the Institute for New Hampshire Studies, the travel and tourism industry ranks only behind retail trade in employment and is the second leading export activity after manufacturing. From July 1999 to July 2000, there were over 26 million visitor trips to New Hampshire. About 38 percent took place in the summer months, 26 percent in the fall, 20 percent in the spring, and the remainder (about 15 percent) in the winter. About 40 percent of spending occurred in the summer, 24 percent in the fall, 19 percent in the winter and 17 percent in the spring.

Direct spending by travelers and tourists represented 7.9 percent of the Gross State Product in 2000. Recreation spending alone represented 15 percent of direct spending, eating and drinking represented another 25 percent, and lodgings another 13 percent.

Total direct and indirect spending rose to \$5.2 billion, representing a 13 percent increase from 1998 to 2000. Tourism employment figures for the past 12 years indicate an upward, generally positive trend. Tourism employment has increased from 56,453 in 1988 to 68,774 in 2000. Much of this growth has taken place during the last few years.

Another recent report (*NH Visitors, Spring 2001 through Winter 2001-02*) from the Institute for New Hampshire Studies surveyed destination or overnight visitors to New Hampshire. This study found that, on average, 38 percent of destination or overnight visitors to New Hampshire are from Massachusetts. This compares to 14 percent of overnight or destination travelers who identified themselves as New Hampshire residents.

When asked the most important purpose for their trip, 31 percent of respondents indicated, “to visit friends or relatives”. However, the second most important reason was for outdoor recreation (22 percent). This was especially important for summer and winter travelers. Respondents were also asked about the activities they participated in while on their trip. Shopping was listed as the top reason, followed by outdoor activities (27 percent), visiting national/state parks (12 percent), and visiting beaches (nine percent). Historic places, skiing, golfing and tennis, and theme/amusement parks were also mentioned by at least five percent of respondents. In general most of the activities mentioned, besides shopping, relate directly to the outdoor environment. Clearly the ability to participate in outdoor recreation is of prime importance to New Hampshire visitors.

**Relationship to Open Space.** A 1999 study by Economic Systems Group for the Society for the Protection of New Hampshire Forests (SPNHF) examined the economic impacts of open space on the New Hampshire economy. Open space was identified as a fundamental aspect for four major sectors: agriculture, forestry, tourism/recreation, and vacation homes. In all, this report found that 54 percent of direct spending on tourism and recreation was attributed to open space. According to 1996/7 figures, this constituted \$1.7 billion of \$3.2 billion in direct spending on travel and tourism. Spending related to second homes used primarily for vacation or recreational use was 100 percent attributed to open space.

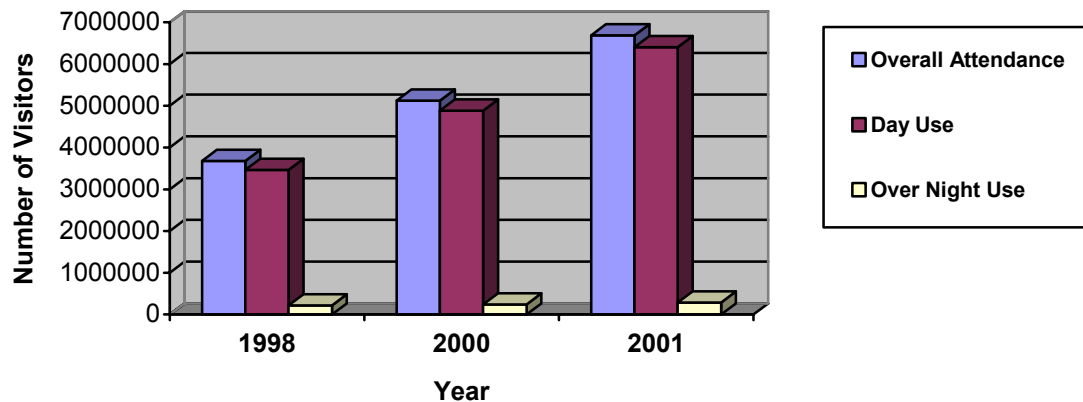
**State Parks.** Visitation to State Parks in New Hampshire also underscores the importance and growing popularity of outdoor recreation in the state for residents and visitors alike. Figure 10 below provides a summary of visitation trends to New Hampshire’s State Park system. State Parks have seen an increase in reported attendance. Estimated use was reported at 3.68 million in 1998 and 6.69 million in 2001<sup>10</sup>. The vast majority of this increase is due to reported increases in day use and better reporting in day use. As demand continues to increase, the impacts on developed park facilities and the natural/cultural resource base may also increase, adding further credence to increased focus on major renovations and refurbishments.

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<sup>10</sup> Figures reported in 1999, 2001, and 2002 *Annual Information Exchange*, published by the National Association of State Park Directors.

New Hampshire State Parks are self-funded, operating off of receipts rather than State General Funds. This was formalized when the Legislature established the State Park Fund in 1991(RSA 40:2). According to the Department of Resources and Economic Development – Division of Parks and Recreation, the State Park fund has shown a net operating income gain for 6 out of the last 10 years, and currently offers more opportunity than general funding by the state.

**Figure 10. New Hampshire State Park Visitation Trends**



**The White Mountain National Forest.** The White Mountain National Forest (WMNF) is a major recreation and tourism destination in New England and is within a day's drive of almost one-third of the nation's population. According to the *White Mountain National Forest 2000 Monitoring Report*, the WMNF provides about 1,200 miles of hiking trails, 20 scenic outlooks, 22 campgrounds, 13 picnic areas, over 60 huts, tent sites, shelters, and backcountry cabins. The report notes that shelter site use has increased by 7 percent annually from 1986 to 1999 and hut use has increased by about 2.5 percent annually between 1986 and 2000.

A relatively new component of recreation management in the White Mountain National Forest is found in the fee demo program. This user-pays program, begun in 1997, charges visitors a small fee for day/weekly use, or offers frequent visitors a \$20 annual pass. Funds are used specifically to enhance the recreational uses of the forest. Forest managers see these monies as an important means of maintaining or improving visitor facilities as federal appropriations dwindle. Fee receipts fell slightly over the last year. Receipts totaled about \$786,000 in 1999, and fell to about \$656,500 in 2000.

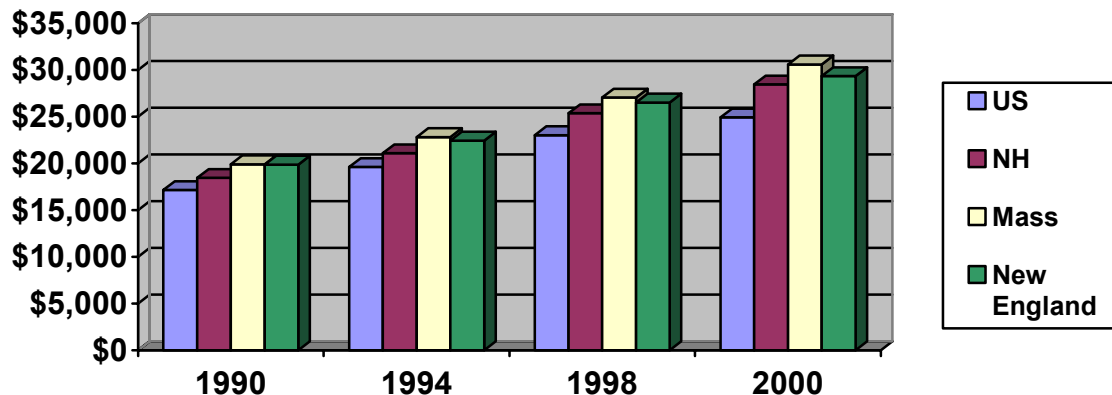
The US Forest Service completed a survey in 2001 that examined visitor use in the WMNF. Visitors were interviewed at a variety of sites during 2000. These statistics provides data about who goes to the WMNF, what they do there, and how satisfied they were with facilities and the experience. This study found that almost two-thirds of visitors were male (65 percent). Almost 43 percent of visitors were between the ages of 41-50 and an overwhelming majority of visitors were white (93 percent). About 2.4 percent of visitors were Asian, 2 percent African-American, and 2 percent American Indian/Alaska Native.

A majority (93 percent) of those interviewed indicated that the White Mountain National Forest was their primary destination for that trip. The most popular activities in the WMNF include viewing wildlife and natural features, sightseeing, hiking and walking, general relaxation, driving for pleasure on forest roads, cross-country skiing, and developed camping. Respondents listed cross-country skiing, developed camping, downhill skiing, picnicking, general relaxing, and hiking/walking most frequently as the primary activity they participated in during that WMNF visit.

### Socio-Economic Trends

**Income.** National figures (NSRE 1994-95) suggest that participation in many outdoor recreation activities is positively associated with income levels. Participation tends to be higher for those with middle incomes than those with low incomes, though participation rates fall slightly for those with the highest incomes (greater than \$100,000). Figure 11 shows that New Hampshire, Massachusetts, and New England as a region, all have higher income levels than the United States average. Massachusetts, in fact, has one of the highest per capita personal incomes levels in the country.

**Figure 11. Per Capita Disposable Personal Income**



Source: Bureau of Economic Analysis, Regional Accounts Data, Annual State Personal Income

New England, and Massachusetts in particular, makes up a majority of the state's out-of-state tourism base. If these regional income levels remain consistently higher than the national average, this may have positive effects on New Hampshire's travel and tourism economy and on overall demand for outdoor recreation.

**Population.** As population increases, overall demand for outdoor recreation (as measured by the number of people participating) is also likely to increase. Table 19 shows that, in the last decade, the state's overall population has increased by 11.4 percent. Much of this increase is represented by the growth in the southern tier of the state.

<b>Table 19. Actual and Projected Population by County: 1970-2020</b>							
	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2020</b>
<b>BELKNAP</b>	32,367	42,884	49,216	56,325	60,296	63,746	69,956
<b>CARROLL</b>	18,548	27,931	35,410	43,666	47,188	51,274	57,790
<b>CHESHIRE</b>	52,364	62,116	70,121	73,825	77,336	80,376	88,206
<b>COOS</b>	34,291	35,147	34,828	33,111	32,770	31,873	34,978
<b>GRAFTON</b>	54,914	65,806	74,929	81,743	86,512	91,462	98,851
<b>HILLSBOROUGH</b>	223,941	276,608	336,073	380,841	406,344	429,594	469,923
<b>MERRIMACK</b>	80,925	98,302	120,005	136,225	145,497	155,208	173,370
<b>ROCKINGHAM</b>	138,951	190,345	245,845	277,359	294,927	313,188	342,177
<b>STRAFFORD</b>	70,431	85,408	104,233	112,233	117,971	124,721	136,871
<b>SULLIVAN</b>	30,949	36,063	38,592	40,458	41,945	44,345	48,665
<b>NEW HAMPSHIRE</b>	737,681	920,610	1,109,252	1,235,786	1,310,786	1,385,787	1,520,787

**Sources:** 2000 US Census – New Hampshire, US Bureau of the Census  
 New Hampshire Population Projections 2000-2020, Office of State Planning, 1997.  
 New Hampshire Population Projections 2005-2025, Office of State Planning, 2002.

Hillsborough and Rockingham Counties, the two counties with the greatest overall population levels, accounted for 60 percent of the total population gain between 1990 and 2000. The greatest percentage gain was noted in Carroll County. Carroll County grew by over 23 percent or by more than 8,000 new residents in the 10-year period between 1990 and 2000. Belknap County saw a rise of over 14 percent. Only Coos County saw a decline in population. Population projections out to 2020 indicate that similar patterns, countywide can be expected in the future.

Looking at 30-year trends from 1970 to 2000 (Table 20), Carroll County shows the highest rate of growth at over 135 percent. Rockingham, Hillsborough, Merrimack, and Belknap Counties were all above the statewide average of 67.5 percent. Only Coos County shows a net loss of population. The population fell by 3.4 percent between 1970 and 2000.



<b>Table 20. Rate of Population Change in New Hampshire Counties</b>		
<b>Percent Change in Population</b>	<b>1990-2000</b>	<b>1970-2000</b>
BELKNAP	+14.4%	+74.0%
CARROLL	+23.3%	+135.4 %
CHESHIRE	+5.3%	+41.0%
COOS	-4.9%	-3.4%
GRAFTON	+9.1%	+48.9%
HILLSBOROUGH	+13.3%	+70.1%
MERRIMACK	+13.5%	+68.3%
ROCKINGHAM	+12.8%	+99.6%
STRAFFORD	+7.7%	+59.4%
SULLIVAN	+4.8%	+30.7%
<b>NEW HAMPSHIRE</b>	<b>+11.4%</b>	<b>+67.5%</b>

**Sources:** 2000 US Census– New Hampshire, US Bureau of the Census

**Age.** According to the 2000 Census, the average age of the population in New Hampshire is 37.1 years. This compares to an average age of 30.1 in 1980 and 32.8 in 1990. These trends are consistent with nationwide averages. The baby boomers are growing older and people are living longer and healthier lives. This trend towards an older average population is expected to continue and recreation providers will need to consider this aging population in the years to come.

On average, about 75 percent of the state’s population is aged 18 or older. Looking at the county level, Grafton County and Coos County had older than average populations, and Hillsborough and Rockingham had the youngest. This younger population base in the southern part of the state can probably be linked to the influx of new residents and families to the area in the 1980s and 1990s. Many are young professionals with kids who work in and around the Boston metro area. The older average age of the northern tier of the state suggests that there are, on average, fewer families with small children, and suggests that some who moved to this region in the 1990’s may have done so later in life.

**Race and Ethnicity.** New Hampshire has a very small minority population, compared to the rest of the nation. While still an overall small percentage, New Hampshire’s minority population has grown in the last decade. Census figures for 2000 show minority racial groups represent almost three percent of the state’s population, up from about two percent in 1990. The 2000 census figures show that about one percent of New Hampshire’s population is African American and 1.6 percent is Asian.

Census figures also provide information about ethnicity. The Hispanic/Latino population represents about 1.7 percent of the state’s population. According to the 2000 Census, every county in New Hampshire has seen an increase in this sector of the population. Hillsborough County, and in particular the cities of Nashua and Manchester, have the largest Hispanic populations in the state. In fact, the Hispanic population in both cities has more than doubled in the last 10 years. Manchester’s Hispanic population has

increased 133 percent in just a decade, up from 2,121 in 1990 to 4,944 in 2000. Manchester's total 2000 population was 107,006. Nashua's Hispanic population has increased 124 percent, from 2,407 in 1990 to 5,388 in 2000. Nashua's total population in 2000 was 86,605. This trend makes it increasingly important for communities to consider the needs and demands of a more culturally diverse population. In addition to the LWCF, the National Park Service also administers the Urban Park and Recreation Recovery Program (UPRRP). This federal program is aimed at more urban areas to help with recreation facility/area rehabilitation, planning, and other innovating projects. Currently, Manchester is the only New Hampshire community eligible to apply for UPRRP monies.

### Community Recreation

**Demand For LWCF funding.** Table 21 below provides statistics related to New Hampshire's Land and Water Conservation Fund (LWCF) allocations for municipal projects. After several years of no funding, between 1995 and 1999, New Hampshire has again begun to receive federal LWCF funds. In the last two years, New Hampshire has distributed over \$1.35 million in grants, funding 15 different projects. Available grants fell far below the demand for funding. In this two-year period there were 65 local proposals totaling almost \$4.5 million in requests. Clearly, demand for local recreation funding remains strong across the state.

<b>Table 21. Municipal Demand for LWCF Assistance Since 1990, New Hampshire</b>						
<b>Federal Fiscal Year</b>	<b>NH LWCF Allocation for Municipal Projects</b>	<b>Dollar Value of Grants Requested</b>	<b>Cap</b>	<b>Shortfall</b>	<b>Number of requests</b>	<b>Number of grants funded</b>
1990	\$111,500	\$370,000	\$25,000	\$258,500	19	6
1991	\$170,540	\$437,490	\$25,000	\$266,950	23	8
1992	\$129,509	\$592,428	\$25,000	\$462,919	30	8
1993	\$170,000	\$719,812	\$25,000	\$549,812	39	9
1994	\$168,096	\$587,984	\$25,000	\$419,888	30	9
<b>1995 TO 2000</b>	<b>\$0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
2001	\$600,000	\$1,955,072	\$100,000	\$1,355,888	30	7
2002	\$750,000	\$2,500,000	\$100,000	\$1,750,000	35	8

Source: DRED, 2002

**Community Needs.** In 1993 and again in 1997 OSP conducted a Recreational Leaders Survey to gain a better understanding of local recreational demand and need. Of the 130 communities surveyed, 46 responses were received (35 percent response rate). While New Hampshire communities vary significantly depending on location and size, this data does provide some clues about general recreational trends and needs facing New Hampshire communities, as identified by recreation leaders.

This survey asked recreation leaders (e.g. recreational directors) about recreational facility needs in their communities. Table 22 shows that play fields (ball fields) were identified most frequently as a “need” in the community. Specifically, about 70 percent of respondents indicated that their town needed at least one ball field. Other facilities identified most often include outdoor ice skating areas, bicycle trails, playgrounds, hard court games and picnic areas. Golf courses and campgrounds received the lowest priority rating (4.3 percent respectively).

Questions posed to recreation leaders also centered on community need for local recreational programs and activities. The most frequent programmatic needs included elderly programs (57 percent), followed by concerts, plays, and shows (41 percent). About 39 percent of respondents indicated that their community needed youth programs, programs for the disabled and environmental education programs, and 35 percent identified arts and crafts programs and adult sports leagues as needing expansion, respectively. When asked what was the best thing about recreation in their town, 48 percent of respondents indicated that they felt recreation programs were well supported in the community. When asked about the worst thing, 33 percent indicated insufficient funds for recreation.

<b>Table 22. Reported Community Recreational Needs</b>					
<b>1997 TOP FACILITY NEEDS</b>			<b>1993 TOP FACILITY NEEDS</b>		
<b>Rank</b>	<b>Facility</b>		<b>Rank</b>	<b>Facility</b>	
1	Ball fields		1	Softball/baseball fields	
2	Outdoor ice skating		2	Tennis Courts	
3	Bicycle trails		3	Trails	
4	Playgrounds		4	Outdoor Basketball	
5	Picnic areas		5	Playgrounds	
6	Hard court games (basketball)		6	Swimming Pool/Beach	
7	Trails (hiking, nature study, cross-country skiing)		7	Community Center	
8	Gymnasium		8	Gymnasium	
9	Tennis courts		9	Skating Rink	
10	Parks		10	Track	

**Source:** OSP Recreational Leaders Survey, 1997 and 1993

The survey above was directed towards recreational directors and committees. Given this, many questions focused on developed recreation facilities and programs, typically the responsibility of recreational leaders, rather than on a broad set of structured and

unstructured activities (e.g. trails in town forests, conservation lands) that are available within a community<sup>11</sup>.

**Other Local Indicators.** In 2001, the University of New Hampshire, through the Master's in Public Administration program, conducted a survey of community recreation directors/leaders in New Hampshire who are part of the New Hampshire Recreation and Park Association (NHRPA). In all, 72 communities at the time were members of the NHRPA. Forty-five agreed to participate in the telephone interview, resulting in a participation rate of 62 percent.

The survey asked questions related to program organization, structure, and effectiveness, rather than asking for information about specific recreational needs. This data provides some context and information about how recreation-related decisions are made locally. For instance, approximately 56 percent of the surveyed recreation leaders report to the Town Administrator, 13 percent report to the Board of Selectmen, and 11 percent report to the parks and recreation committee in their community. The remainder (20 percent) report to various other entities in the community. Almost three-quarters (73 percent) have a parks and recreation committee in their community. Of these, 60 percent are appointed. About 67 percent of those surveyed indicated that their community has a recreation master plan.

The survey also asked several questions about community recreation facilities and programs. When asked for their personal opinion, only 24 percent of respondents indicated that the existing facilities inventory met the current demand. A majority of recreational leaders felt that local demand currently exceeds supply. Recreational programs were perceived differently. A majority (69 percent) felt that the existing recreation program inventory met the current demand.

When asked about maintenance and joint-use, 44 percent of leaders indicated that the parks and recreation department maintain town facilities and 18 percent of communities surveyed have facilities maintained by the public works department. A majority of the communities surveyed have some level of access to (or utilize) school district facilities (91 percent), though the extent of access or shared use is not known.

In terms of budgets and fees, almost 89 percent of surveyed park and recreation departments charge fees for some programs/facilities, and 69 percent charge different fees for residents than non-residents. Of the fees generated, about 64 percent of respondents said the money went into the community General Fund and only 13 percent said it went into a designated parks and recreation fund.

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<sup>11</sup> Future OSP surveys may want to explore a wider range of activities and be directed to both local recreation leaders and conservation leaders. This broader range of perspectives may provide additional guidance about how community leaders jointly perceive open space needs, unstructured recreational needs, and developed or structured recreation facility needs.

## **Community Profiles**

In the last decade, UNH Cooperative Extension has completed Community Profiles in over 60 communities across the state. Community Profiles provides a forum for local leaders and residents to identify key issues in their community and generate action steps to address those issues. UNH Cooperative Extension recently reviewed these 60 profiles to identify common threads among communities. As part of this process both major and minor themes were identified.

Though not a major theme for communities, outdoor recreation was identified as a prevalent issue within larger themes. This review found that recreation is often expressed as an issue within larger themes of economic development or community development. In terms of community development, increasing recreational opportunities was often identified as a way to develop a stronger sense of community and participate in shared activities. Increasing community access to important resources, such as trail systems or boat ramps was also identified as a theme in many communities. In several communities in the northern part of the state, recreation was discussed in terms of economic development. Improving recreation is seen as a mechanism for increasing tourism in the region.

Natural resource protection was an important theme discussed by many communities across the state. Often resource protection was discussed in concert with discussions about the opportunities for economic development through tourism, the need to plan for managed growth, and needs related to community development through improved recreational access. This intertwining of issues on paper reflects the real-world integration of resource protection issues with recreation, community, and economic development and the need to plan for smarter, balanced growth locally.